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CHINA.

IMPERIAL MARITIME CUSTOMS.

III.—MISCELLANEOUS SERIES: No. 6.



LIST OF THE CHINESE LIGHTHOUSES, LIGHT-VESSELS, BUOYS, AND BEACONS

FOR

1896.

(Corrected to 1st December 1895.)

TWENTY-FOURTH ISSUE.

PUBLISHED BY ORDER OF

The Inspector General of Customs.

SHANGHAI:

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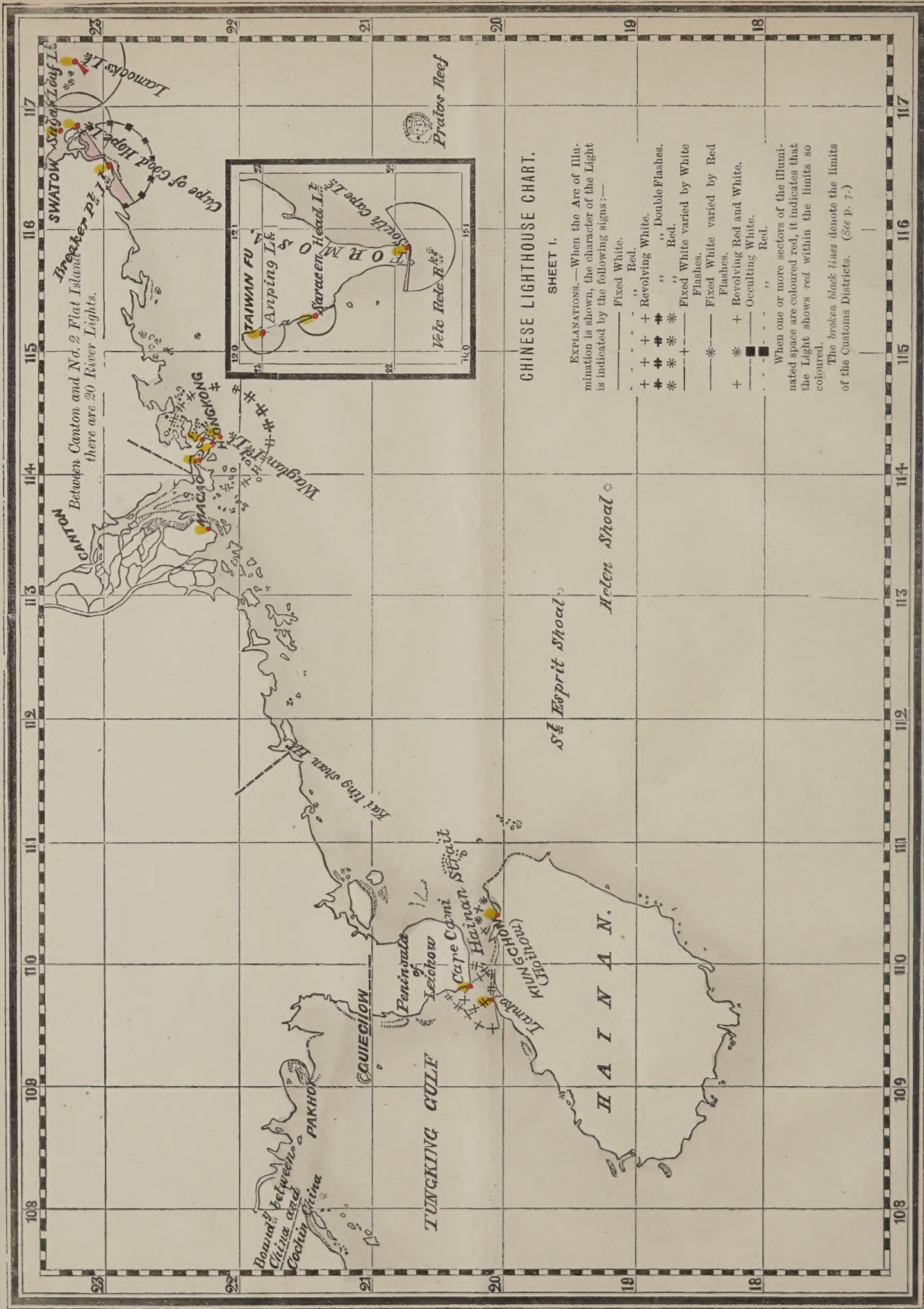
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CHINESE LIGHTHOUSE CHART.

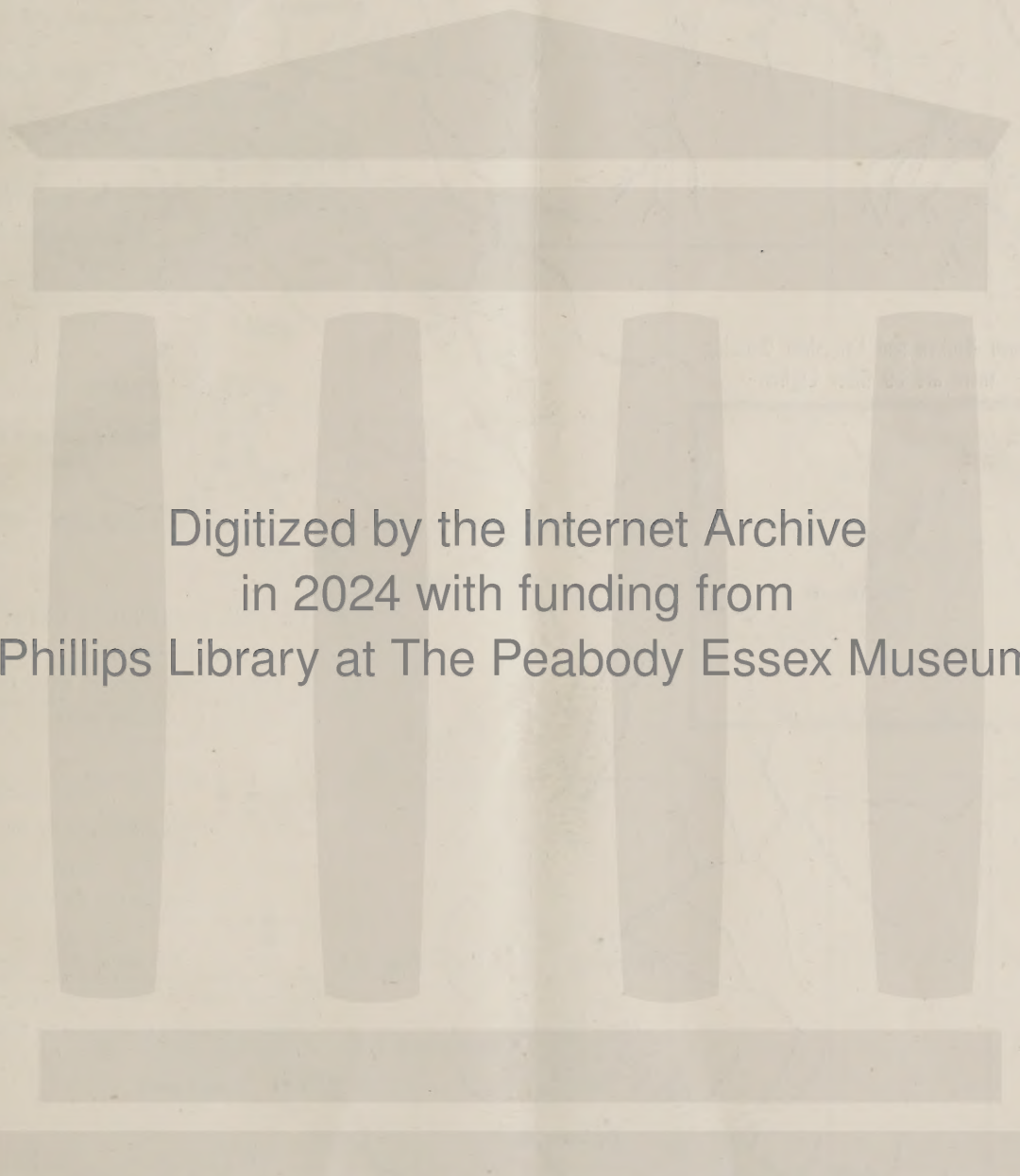
SHEET 1.

EXPLANATIONS.—When the Arc of Illumination is shown, the character of the Light is indicated by the following signs:—

- Fixed White.
- " Red.
- + + + + + Revolving White.
- + + + + + " Double Flashes.
- + + + + + " Red.
- + + + + + Fixed White varied by White.
- + + + + + Flashes.
- + + + + + Fixed White varied by Red.
- + + + + + Flashes.
- + + + + + Revolving Red and White.
- + + + + + Occulting White.
- + + + + + " Red.

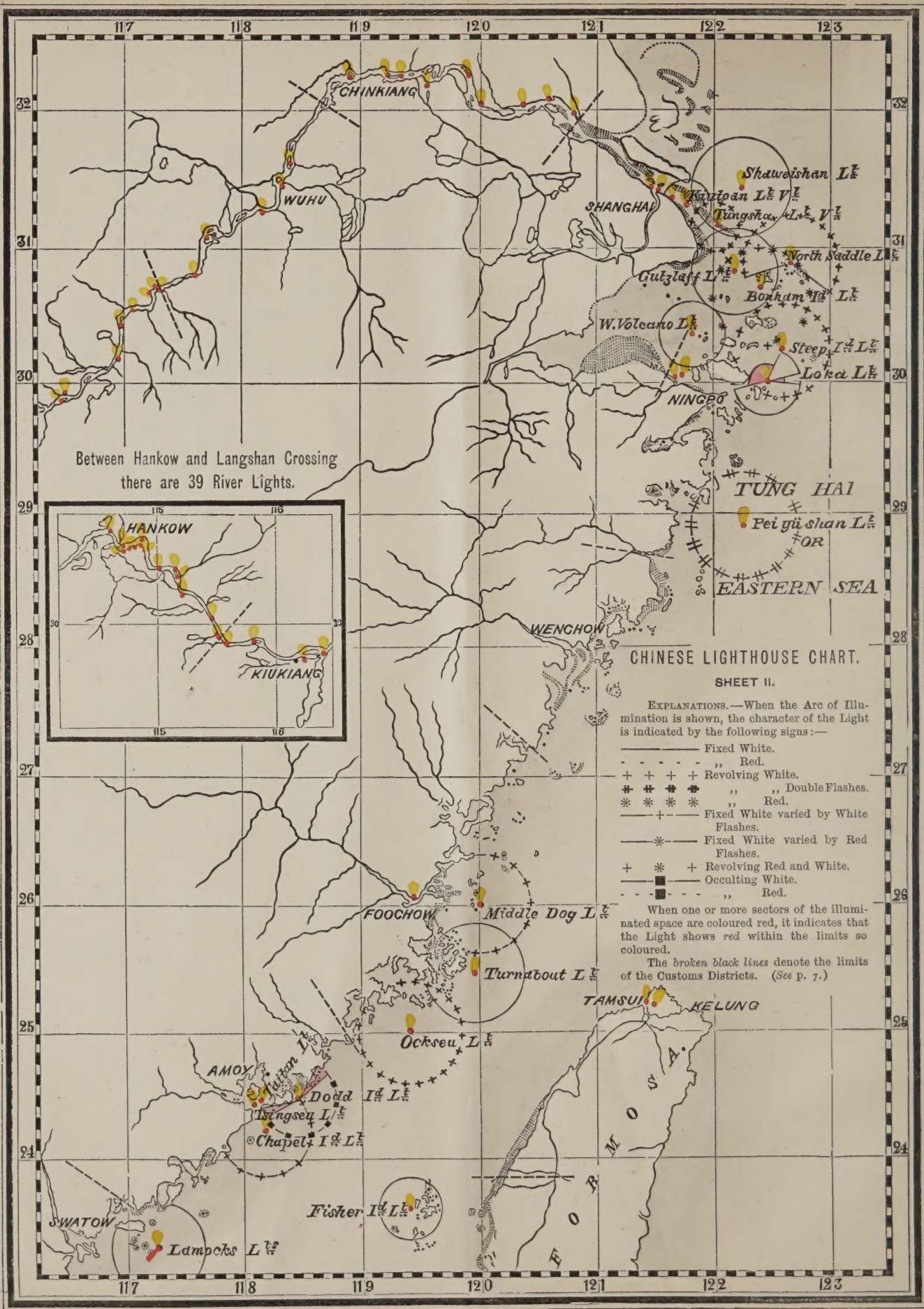
When one or more sectors of the illuminated space are coloured red, it indicates that the Light shows red within the limits so coloured.

The broken black lines denote the limits of the Customs Districts. (See p. 7.)

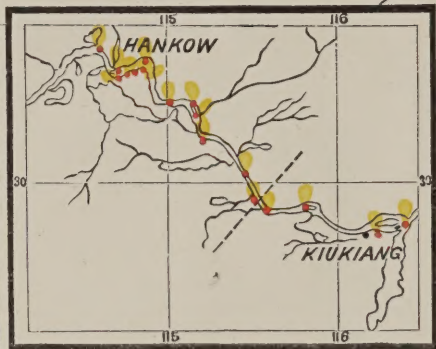


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Between Hankow and Langshan Crossing
there are 39 River Lights.



CHINESE LIGHTHOUSE CHART.

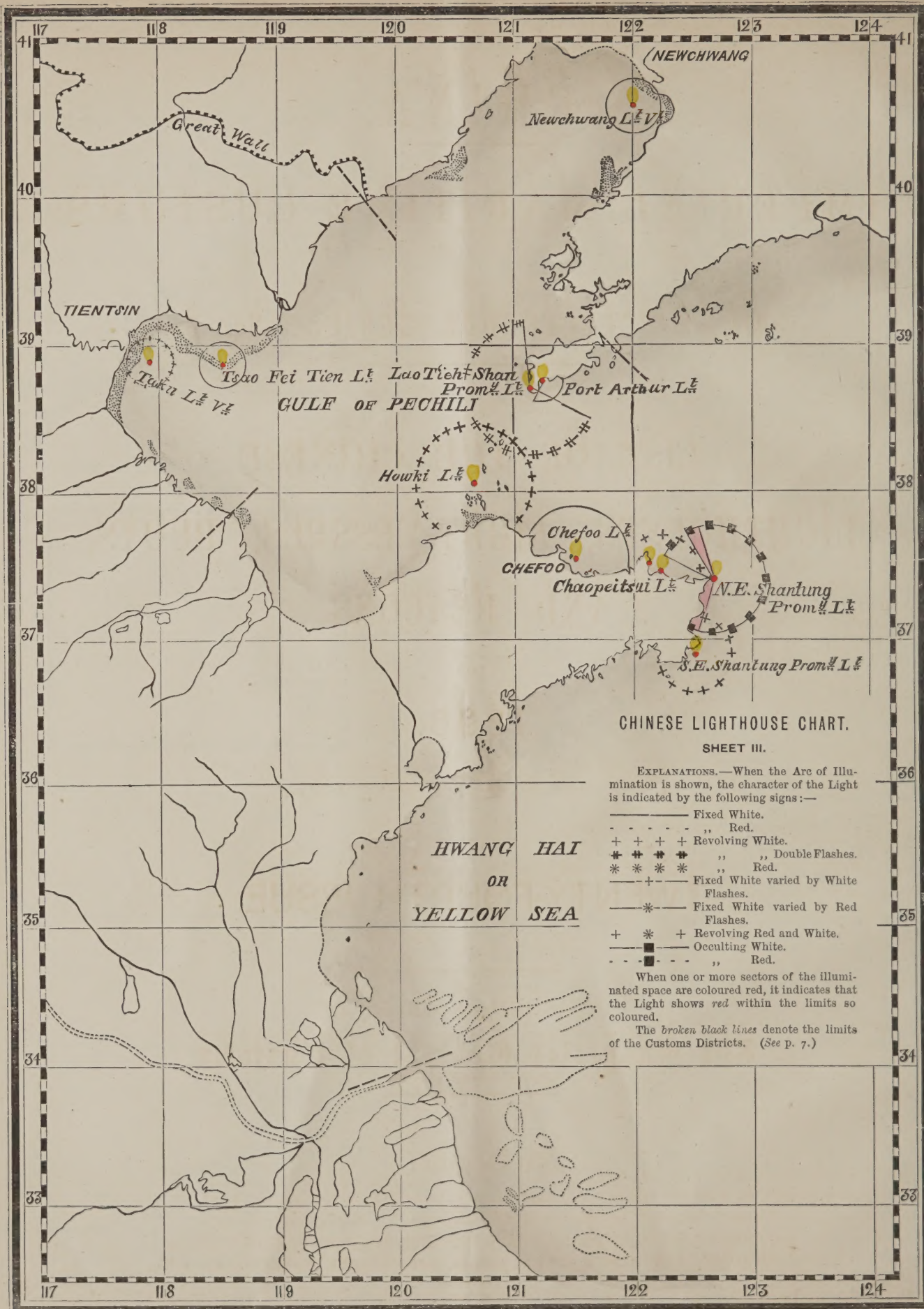
SHEET II.

EXPLANATIONS.—When the Arc of Illumination is shown, the character of the Light is indicated by the following signs:—

- Fixed White.
- " Red.
- + + + + Revolving White.
- * * * * " " Double Flashes.
- * * * * " " Red.
- + — Fixed White varied by White Flashes.
- * — Fixed White varied by Red Flashes.
- + * + Revolving Red and White.
- ■ — Occulting White.
- - - - " Red.

When one or more sectors of the illuminated space are coloured red, it indicates that the Light shows red within the limits so coloured.

The broken black lines denote the limits of the Customs Districts. (See p. 7.)



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SUMMARY OF LIGHTS, BUOYS, AND BEACONS IN CHINESE WATERS.

CUSTOMS DISTRICT.	LIGHTS.	LIGHT-VESSELS.	BUOYS.	BEACONS.	TOTAL.
Pakhoi .....	...	...	3	...	3
Kiungchow	3	...	4	...	7
Canton	23	...	7	7	37
Swatow	5	...	4	1	10
Amoy	4	...	8	16	28
Foochow	4	...	9	4	17
Wenchow .....	...	...	...	7	7
Ningpo	4	...	1	4	9
Shanghai	14	2	24	11	51
Chinkiang.....	11	...	1	...	12
Wuhu .....	...	...	...	...	...
Kiukiang.....	14	...	...	2	16
Hankow.....	14	...	9	4	27
Ichang .....	...	...	...	...	...
Chefoo.....	8	...	...	1	9
Tientsin	1	1	4	6	12
Newchwang .....	...	1	3	5	9
TOTAL	105	4	77	68	254

ABBREVIATIONS AND EXPLANATIONS.

LIGHTS.

- F. Fixed; only a fixed or steady light being visible.
- F. & Fl. Fixed and Flashing; a fixed light being always visible, which is intensified by flashes at the intervals stated.
- Rev. Revolving; the light gradually increases to full effect and then gradually decreases to total eclipse at the intervals given, which are from centre to centre of the maximum brilliancy.
- Occ. Occulting; when, for the periods stated, a fixed or steady light is shown, followed by a more or less sudden eclipse.
- Gp. Fl. Group flashing; showing groups of two or more flashes in succession, separated by eclipses.
-

ILLUMINATING APPARATUS.

- C. Catoptric, or by metallic reflectors.
- D. Dioptric, or by lenses and prisms.
- Ord. Order, or class of apparatus, numbered from the first (or most powerful) to the eighth order.
-

The bearings are magnetic, and are given from seaward.

The given distances, from which the lights should be visible in clear weather, are calculated for an observer at a height of 15 feet above the sea; the elevation of the lights being in all cases taken as above high water.

In several cases, however, when the light is not powerful enough to carry to the distance calculated from its height, a reduced range has been given.

The coloured lights are specially noted in *italics* in the column for remarks, all others being white.

The lights are exhibited from sunset to sunrise.

Longitude is given in degrees, minutes, and seconds east of Greenwich. The miles given are nautical miles, or minutes of latitude. Except in certain specified cases, the positions given are only approximate ones.

The light-vessels and lighthouses are provided with both Codes of Signals, but it is advisable to use the Commercial Code.

Banks of rivers are spoken of geographically, *i.e.*, as *right* or *left* to a person facing *down* the stream.

*** Should Pilots or Commanding Officers of vessels detect or suspect that any movable mark has changed from its latest advertised position, they are requested to report such change without delay to the Harbour Master of the district concerned.*

LIMITS OF CUSTOMS DISTRICTS.

The Pakhoi Customs District includes the coast line of China from the Tonkin frontier to Waichow (Guiechow) Island.

The Kiungchow (Hoihow) Customs District includes the Hainan coast, and from Waichow (Guiechow) Island to Hai-ling-shan.

The Canton Customs District extends (for matters affecting the Marine Department) from Hai-ling-shan, $111^{\circ} 45'$ E. longitude, to 114° E. longitude.

The Swatow Customs District includes that part of the coast which is situated between Mirs Point and the Lamocks.

The Amoy Customs District extends from the Lamocks north to Chinchew, inclusive.

The Foochow Customs District extends from Chinchew north to Namkwan.

The Wenchow Customs District includes the coast from Namkwan to Taichow.

The Ningpo Customs District extends from Taichow north to Hangchow Bay.

The Shanghai Customs District extends from Hangchow Bay along the coast as far as the old mouth of the Yellow River, latitude 34° N., and up the Yangtze to the Langshan Crossing.

The Chinkiang Customs District comprises the Yangtze from the Langshan Crossing to Nanking.

The Wuhu Customs District includes the river from Nanking to Nganking.

The Kiukiang Customs District comprises the river from Nganking to the gorge west of Kiukiang.

The Hankow Customs District extends from the gorge west of Kiukiang to Yochow, at the mouth of the Tungting Lake.

The Ichang Customs District extends from the Tungting Lake to the gorge above Ichang.

The Chefoo Customs District includes the coast line from the old mouth of the Yellow River to the Ta-tsin-ho.

The Tientsin Customs District extends from the Ta-tsin-ho to the Shanhaikwan.

The Newchwang Customs District extends from the Shanhaikwan to Newchwang and from Newchwang south to Talienwan.

** * The Limits of the Customs Districts are shown approximately on the Charts at the beginning of this volume by broken lines cutting the Coast or the Yangtze River.*

SYSTEM OF COLOURING BUOYS AND BEACONS IN CHINESE WATERS.

BUOYS.

No.	COLOUR OF BUOY.	DIRECTIONS AND EXPLANATIONS.
1	Red	Entering the channel from seaward, <i>red</i> buoys will be found on the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in.
2	Black	Entering the channel from seaward, <i>black</i> buoys will be found on the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.
3	Red and black horizontal bands.	Buoys painted in <i>red</i> and <i>black</i> horizontal bands will be found in the fairway, and should be passed close-to.
4	Red and black vertical stripes.	Buoys painted in <i>red</i> and <i>black</i> vertical stripes will be found on the ends of spits, and the outer and inner extremes of banks, shoals, or extensive reefs, where there is a navigable channel on either side of such spit, bank, shoal, or reef. Vessels should never attempt to pass between a buoy thus painted and the danger which it marks.
5	Red and black chequers	Buoys painted in <i>red</i> and <i>black</i> chequers will be used to mark rocks in the open sea, also to mark obstructions of small extent having channels on either side of them. When used for the latter purpose they will be placed to seaward of the danger. Vessels should never attempt to pass between a buoy thus painted and the danger which it marks.
6	Red and white chequers	When two chequered buoys of these colours are used to mark an obstruction, the <i>red</i> and <i>white</i> one is to mark the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in; and the <i>black</i> and <i>white</i> one is to mark the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.
7	Black and white chequers	
8	Wreck buoys	<p>Wrecks will in all cases be marked by <i>green</i> buoys, having the word WRECK painted on them in <i>white</i> letters, and when a wreck lies in the open sea or in a position where there is a navigable channel with plenty of room on either side of it, the buoy will carry no other distinguishing mark, and will in every such case be placed to seaward of the wreck.</p> <p>Wreck buoys marked with an <i>even</i> number must be left on the <i>starboard</i> hand by vessels entering from the sea.</p> <p>Wreck buoys marked with an <i>odd</i> number must be left on the <i>port</i> hand by vessels entering from the sea.</p> <p>The numbers on wreck buoys will be painted in <i>white</i>, and placed above the word WRECK.</p>

Note.—All other distinguishing marks to buoys will be in addition to the foregoing, and where such are employed, a particular description of the same will in each case be given in the published List.

Each buoy will have an iron plate fastened on its outside, in some convenient place above the water-line, with the name of its district and station as given in the published List stamped thereon in English and Chinese, to insure its identification if found adrift.

BEACONS:

No.	COLOUR OF BEACON.	DIRECTIONS AND EXPLANATIONS.
1	Red	Entering the channel from seaward, <i>red</i> beacons will be found on the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in.
2	Black	Entering the channel from seaward, <i>black</i> beacons will be found on the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.
3	Red and black vertical stripes.	Beacons painted in <i>red</i> and <i>black vertical stripes</i> will be used to mark spits and the outer and inner extremities of banks, shoals, or extensive reefs, where there is a navigable channel on either side of such spit, bank, shoal, or reef.
4	Red and black chequers	Beacons painted in <i>red</i> and <i>black chequers</i> will be used to mark rocks in the open sea, also to mark rocks of small extent having channels on either side of them.
5	Red and white chequers	<p>When two <i>chequered beacons</i> of these colours are used to mark a rock or reef, the <i>red</i> and <i>white</i> one is to mark the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in; and the <i>black</i> and <i>white</i> one is to mark the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.</p> <p><i>Note.</i>—It is to be understood that the above rules for painting beacons apply in each case to the body of the structure. When a beacon which is painted a single colour, either black or red, is surmounted by a distinguishing mark, such mark may be painted the same colour as the body of the beacon or with that colour and white combined, or white alone.</p> <p>When the body of a beacon is painted in two colours, the same colours only may be used to paint the mark by which it is surmounted. Whenever a distinguishing mark is used, a particular description of it will be given in the published List.</p>
6	Black and white chequers	
	Various	Beacons on shore, to enable bearings to be taken or to give lines of direction for crossing bars or entering rivers, harbours, etc., will be painted so as to make them as conspicuous as possible. Red, black, and white will be the only colours used, and a particular description of such marks will be given in the published List.

LIGHTS.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Weather.
1	Kiungchow..	Hoihow Harbour.....	Southern shore of Hoihow Bay	20° 1' 15"	110° 16' 10"	Gp. Fl.	6 seconds white, 13½ seconds red and white.	10
2	do. ..	Lamko.....	Extremity of Lamko Point.....	20° 0' 30"	109° 42' 15"	Rev.	20 seconds	13½
3	do. ..	Cape Cami.....	Near the southernmost point of the islet marked on the charts as Cape Cami.	20° 13' 25"*	109° 55' 5"	Gp. Fl.	½ minute	13½
4, 5	Canton	Dutch Folly North Beacons.	On the rocks near Dutch Folly Island.	.....	.....	F.	.....	2
6	do.	Dutch Folly South Beacon.	do. do.	.....	.....	F.	.....	1
7, 8	do.	Whampoa Barrier	Whampoa Channel, at the upper end of Whampoa Island.	.....	.....	.....	.....	.....
9-12	do.	Cambridge Reach Bar- rier.	Cambridge Reach, Whampoa Chan- nel.	.....	.....	.....	.....	1
13	do.	Taimei Beacon	On the end of sandspit making out from 49th Point, Marines Island, Blenheim Passage.	.....	.....	.....	.....	1
14, 15	do.	Taishek Barrier Bea- cons.	Blenheim Passage .....	.....	.....	.....	.....	1
16, 17	do.	High Island Barrier...	Immediately below High Island, Blenheim Passage.	.....	.....	.....	.....	.....
18-21	do.	Bridge Barrier.....	Collinson Reach, Blenheim Passage	.....	.....	.....	.....	1
22-25	do.	Collinson Reach Bar- rier.	do. do.	.....	.....	.....	.....	1
26	do.	Waglan Island.....	Summit of island	22° 11' 9"	114° 18' 11"	Gp. Fl.	½ minute	22

* Nearest approximate position according to latest chart.

LIGHTS.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, white.....	73	22	1894	D. 6th Order	Showing three <i>white</i> flashes in rapid succession followed by a single <i>red</i> flash, and visible in all directions except where obscured by land. The lightkeepers' dwellings, outhouses, and boundary wall are painted white.	1
Screw pile, white with two red horizontal bands.	63½	67½	1894	D. 4th Order	Showing <i>white</i> flashes at intervals of 20 seconds. The lightkeepers' dwellings and outhouses are painted white. <i>Caution.</i> —As there are extensive reefs to the northward and westward of Lamko Point, this lighthouse should be passed at a distance of not less than 2 miles.	2
Screw pile, white.....	67	67½	1895	do.	Showing double <i>white</i> flashes and visible in all directions except where obscured by land. The lightkeepers' dwellings and outhouses are painted white. <i>Caution.</i> —On account of the outlying reefs about Cape Cami, vessels are recommended not to round it at any less distance than 2 miles from the lighthouse.	3
Round, granite beacons, painted red, and sur- mounted by a lantern.	15	26	1859	Unclassed ...	Two <i>red</i> lights on the north side of the channel, Dutch Folly Pass.	4, 5
Round, stone and brick beacon, painted black, and surmounted by a lantern.	10	22	1859	do. ...	A <i>green</i> light on the south side of the channel, Dutch Folly Pass.	6
Iron davits, painted red on the north side of passage and black on the south side.				do. ...	A <i>red</i> light on the north side and a <i>green</i> light on the south side of the steamer passage through barrier.	7, 8
A red spar on the north side and a black spar on the south side of each passage.			1891	do. ...	Two passages through barrier—the southern for steamers, the northern for junks,—each having a <i>red</i> light on the starboard hand and a <i>green</i> light on the port hand, entering from sea.	9-12
Spar beacon, painted black, white, and black, and surmounted by a square frame.	21	27	1872	do. ...	A <i>white</i> light hoisted to bottom of frame.....	13
Spar beacons, each painted red, white, and red, and surmounted by a circular frame.	24	46	1872	do. ...	Two <i>red</i> lights hoisted on the beacons.....	14, 15
Iron davits, painted red on the north side of passage and black on the south side.			1891	do. ...	A <i>red</i> light on the north side and a <i>green</i> light on the south side of passage through barrier.	16, 17
do.			1891	do.	Two passages through barrier—the northern for steamers, the southern for junks,—each having a <i>red</i> light on the starboard hand and a <i>green</i> light on the port hand, entering from sea.	18- 21
do.			1891	do.		22- 25
Round, lower half white, upper half red. Lantern white.	225	52	1893	D. 1st Order	Showing double <i>white</i> flashes and visible in all directions except where obscured by land. The lightkeepers' dwellings, outhouses, and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, indicating the proximity of a vessel, will fire 2 guns with an interval of 15 seconds between them, and, if the vessel's fog signal—showing that she is under way—continues to be heard, will repeat the firing after an interval of 12 minutes. <i>Note.</i> —This light is in the Canton Customs District, but it is under the control of the Amoy Customs.	26

LIGHTS—Continued.

No.	District.	Name of Light,	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
27	Swatow.....	Breaker Point	On the point	*22° 56' 24".5	*116° 29' 43".8	Occ.	8 seconds light and 2 seconds eclipse.	19
28	do.	Cape of Good Hope...	On the cape.....	+23° 14' 19".3	+116° 48' 24"	F. & Occ.	.....	15 white, 8 red.
29	do.	Sugar Loaf	On the eastern end of the summit of island.	23° 19' 54"	116° 45' 32"	F. & Fl.	½ minute	8
30	do.	Lamocks	Summit of High Island	+23° 15' 42".7	+117° 17' 4".5	F.	.....	22
31	do.	do.	Southern slope of High Island.....	.....	.....	F.	.....	8
32	Amoy.....	Chapel Island	Summit of island.....	+24° 9' 49".1	+118° 13' 30"	F. & Fl.	½ minute	22
33	do.	Tsingseu Island.....	On the northern slope of the island	+24° 21' 58".1	+118° 7' 26".3	F.	.....	15 white, 8 red.
34	do.	Taitan Island.....	On the island, near the northern entrance to Amoy Harbour.	+24° 23' 16".1	+118° 10' 0".6	Occ.	14 seconds light, 2 seconds eclipse, 2 seconds light, 2 seconds eclipse, and so on.	10

* Geographical position furnished by Lieut. PIRIE, R.N., H.B.M.S. Rambler.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, black and white horizontal bands.	152½	120	1880	D. 1st Order	<i>White</i> from S. 55° W. round by W. to N. 53° E., and <i>red</i> inshore of both these bearings as far as the land. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 10 seconds between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	27
Round, white	171	22	1880	D. 4th Order	<i>Fixed red</i> from S. 32° E. to S. 10° E.; <i>fixed white</i> , eclipsed for about 3 seconds every minute, from S. 10° E. round by S. and W. to N. 8½° E.; and <i>fixed red</i> , eclipsed for about 3 seconds every minute, from N. 8½° E. till it is shut in by Ma-urh Point. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 1 minute between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	28
Round, red	200	21½	1880	D. 6th Order	<i>Fixed white</i> varied by <i>red</i> flashes at ½-minute intervals; visible all round.	29
Round, black	241	54	1874	D. 1st Order	Visible all round. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and the second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 12 minutes.	30
No tower.....	55	18	1874	D. 4th Order condensing.	Shows a beam of <i>red</i> light between N. 34½° E. and N. 50½° E., covering the White and Boat Rocks. Outside of this angle of 16° the light gradually wanes on each side of it for 44°. In clear weather and when a vessel is close to the lighthouse, faint <i>red</i> light is visible beyond the angle of 24½°, between the bearings of N. 30½° E. and N. 54½° E. Exhibited from a window in a building painted white.	31
Round, black	227	63	1871	D. 1st Order	Visible all round. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 3 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	32
Octagonal, red and white vertical stripes.	130	33	1875	D. 4th Order	<i>Red</i> from N. 1° E. to N. 57° W.; <i>white</i> from N. 57° W. round by W. and S. to S. 50° E.; and <i>red</i> from S. 50° E. to S. 89° E. The lightkeepers' dwellings and boundary wall are painted white.	33
Iron hut, white.....	300	10½	1863 altd. 1888	D. 6th Order	Visible all round.....	34

† Geographical position furnished by Commander W. U. MOORE, R.N., H.B.M.S. *Rambler*.

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
35	Amoy	Dodd Island	Summit of island.....	*24° 25' 43".9	*118° 30' 11".1	Occ.	26 secs. light and 4 seconds eclipse.	18
—	Tainan.....	South Cape †	About 550 yards north from high water mark at the extreme south point of the South Cape, For- mosa.	21° 55' 0"	120° 50' 38"	F.	.....	20
—	do.	Saracen Head †.....	Front of flagstaff near the sum- mit of Saracen Head, at the entrance to Tainan Harbour.	22° 36' 14"	120° 16' 0"	F.	.....	10
—	do.	Anping †.....	About 340 yards N.W. by W. from the tree on the top of the mound in Fort Zelandia.	23° 0' 40"	120° 9' 45"	F.	.....	10
—	do.	Fisher Island †.....	S.W. extremity of island.....	23° 32' 53"	119° 28' 5"	F.	.....	15
—	Tamsui	High Bar Light †.....	Hill to north of the harbour, about 400 yards S. 86° E. from the Red Fort.	.....	.....	F.	.....	10
—	do.	Low Bar Light †.....	Site of old white beacon, about 1,030 yards N. 86° W. from the Red Fort.	.....	.....	F.	.....	6

* Geographical position furnished by Commander W. U. MOORE, R.N., H.B.M.S. Rambler.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year. lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, white.....	147	79	1882	D. 1st Order	<i>White</i> from S. 51° W. round by W. to N. 62° E.; <i>red</i> from N. 62° E. to N. 74° E.; <i>white</i> from N. 74° E. round by E. to S. 31° W.; and <i>red</i> from S. 31° W. to S. 51° W. The lightkeepers' dwellings and outhouses are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of half a minute between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	35
do.	180	71½	1883	do.	<i>White</i> from S. 54° 55' W. round by W. and N. to S. 85° E.; and <i>red</i> from S. 85° E. to S. 28° E. Between the bearings S. 54° 55' W. and S. 86° 28' W., the visibility of the light, owing to the height of the land to the eastward of the lighthouse, will depend upon the distance of the observer from it. With the light bearing S. 54° 55' W., a vessel will need to be between 15 and 20 miles distant in order to see it; but as it is brought to bear more to the westward, it illuminates more of the sea until, on the bearing S. 86° 28' W., it is visible at all distances between the extreme limit of its range and the shore. To the westward and north-westward of the south-west point of Formosa, the light is entirely obscured by the land, between the bearings S. 80° 13' E. and S. 28° E. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 3 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 8 minutes.	—
Square, white. Lan- tern let into seaward angle of building.	164½	16½	1883	D. 6th Order	Visible from N. 36° W. round by N. and E. to S. 20° 30' E., where the light is shut out by the bluff at the foot of Ape Hill.	—
Iron lattice mast, white.	32½	33½	1882	do.	Position changed in November 1890 to a new site about 1,000 feet in a N.W. by N. direction from its last position. Illuminates the whole sea horizon. During the north-east monsoon vessels may anchor anywhere in from 5½ to 6 fathoms, with the light bearing between N. 50° E. and N. 60° E. During the south-west monsoon the best anchorage will be found in from 6 to 7 fathoms, with the light bearing about N.E. ½ N.	—
Round, black	205	33	1875	D. 4th Order	Visible all round except where obscured by the islands. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 5 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	—
Round, white	142	35	1888	D. 6th Order	The high light shows a <i>white</i> light from S. 52° E. round by E. to N. 68½° E. The low light shows <i>green</i> from S. 59° E. to S. 84° E., <i>white</i> from S. 84° E. to N. 86° E., and <i>red</i> from N. 86° E. to N. 61° E. The two <i>white</i> lights, when kept in line, indicate the best channel for crossing the bar when the bar is in its normal state.	—
Square hut on the top of a square iron frame- work. All white.	33	45	1888	do.		

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
36	Foochow	Ockseu	Summit of High Island	*24° 59' 36".3	*119° 27' 7"	Rev.	1 minute	24
37	do.	Turnabout.....	Summit of island	*25° 26' 10".4	*119° 56' 6".8	F.	.....	23
38	do.	Middle Dog	N.E. extremity of Middle Dog Island.	*25° 58' 10".3	*119° 59' 2".1	F. & FL.	$\frac{1}{2}$ minute	23
39	do.	Pagoda Rock	On the rock in the Pagoda Anchor- age.	.....	.....	F.	.....	1
40	Ningpo	Pei-yü-shan	On the summit of Pei-yü-shan (Shaho Island).	28° 53' 15"	122° 15' 40"	Gp. FL.	$\frac{1}{2}$ minute	26
41	do.	Square Island.....	Summit of island	30° 0' 3"	121° 45' 26"	F.	.....	9
42	do.	Tiger Island	do.	*29° 58' 19"	121° 43' 51"	F.	.....	5
43	Ningpo and Shanghai.	Loka Island.....	North point of the island	29° 58' 21"	122° 26' 48"	F.	.....	15 white, 7 $\frac{1}{2}$ red.

* Geographical position furnished by Commander W. U. Moore, R.N., H.B.M.S. Rambler.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, black	286	64	1874 altd. 1875	D. 1st Order	The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 12 minutes.	36
do.	257	54	1873	do.	Visible all round. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 3 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	37
Round, white	257	64	1872	do.	Visible from S. 70° E. round by S. and W. to N. 40½° E. From S. 70° E. round by E. to N. 40½° E. the light is obscured by the Tongsha and Middle Dog Islands, except from S. 80° E. to N. 81¼° E., and from N. 61½° E. to N. 57° E., where the light is also visible. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	38
Iron pile surmounted by a cage, painted red.	16	28	1871	Unclassed ...	Red, visible all round.....	39
Round, white.....	345	55½	1895	D. Hyper- radial.	Showing double white flashes and visible in all directions except where obscured by outlying islands. The obscuration caused by Nan-yü-shan (Saddle Island) is, approximately, between the bearings N. 42° 16' E. and N. 55° 16' E., but near its extreme range the light will show between the two peaks of Nan-yü-shan when it bears between N. 46° 13' E. and N. 50° 3' E. The lightkeepers' dwellings, outhouses, and boundary wall are painted white.	40
Octagonal, white	123	33	1865 altd. 1872	D. 5th Order	Visible all round. A 5-cwt. fog bell is sounded once in fogs at 15-second intervals.	41
Octagonal, red and white vertical stripes.	148	30	1865 altd. 1872	D. 6th Order	Red, visible all round. A gong is sounded in fogs, five times in quick succession, at intervals of about 1 minute. The lightkeepers' dwellings are painted in red and white vertical stripes.	42
White.....	128	.....	1890	D. 4th Order	White from N. 14° 30' W. to N. 86° W. In this sector there are two small obscurations caused by islands to the S.S.E. of Loka, the light being invisible between N. 17° 30' W. and N. 19° 50' W. and between N. 23° W. and N. 26° W. Red from N. 86° W. to S. 78° 30' W.; white from S. 78° 30' W. to S. 25° W.; red from S. 25° W. round by S. to S. 89° 45' E.; white from S. 89° 45' E. to N. 77° E. From N. 77° E. round by N. to N. 14° 30' W. the light is entirely obscured by Loka Island.	43

LIGHTS—*Continued.*

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
44	Shanghai and Ningpo.	Steep Island	Summit of island	*30° 12' 42".2	*122° 35' 20".1	Rev.	$\frac{1}{2}$ minute	22
45	Shanghai ...	West Volcano	do.	*30° 20' 50".1	*121° 51' 25"	F.	.....	15
46	Shanghai and Ningpo.	Bonham Island	Southern shoulder of island	*30° 36' 56"	*122° 25' 5"	Rev.	$\frac{1}{2}$ minute	22
47	Shanghai ...	Gutzlaff	Summit of island	*30° 48' 36".8	*122° 10' 11".6	F.	.....	20
48	do. ...	North Saddle	N.E. extremity of island	*30° 51' 41".4	*122° 40' 16".6	Rev.	1 minute	24

* Geographical position furnished by Commander W. U. MOORE, R.N., H.B.M.S. *Rambler*.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, black	243	47	1883	D. 3rd Order	Between the bearings N. 20° 54' E. and N. 41° 17' E. the light is obscured by Tripod Island, and to the eastward and south-eastward of Video and the Fisherman's Group it is not visible between N. 88° 39' W. and N. 57° 41' W. To the westward and north-westward of Hall Island and Hewett Islands it is also obscured between S. 82° 13' E. and S. 63° 35' E., with the exception of a ray between the bearings S. 65° 53' E. and S. 64° 39' E. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 3 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	44
do.	93	33	1872	D. 4th Order	Visible all round. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 5 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	45
Round, red and white horizontal bands.	237	47	1883	D. 3rd Order	Alternate red and white flashes. Between the bearings S. 14° 41' W. and S. 47° 30' W. the light is obscured by the high land of Bonham Island, and to the northward and eastward of Elliot, Raffles, and Senhouse Islands it is also obscured from S. 12° 2' E. to S. 82° 16' W., with the exception of rays between S. 11° 24' E. and S. 10° 36' E., between S. 2° 21' E. and S. 0° 44' E., between S. 1° 31' W. and S. 3° 19' W., and between S. 50° 5' W. and S. 60° 11' W. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 1 minute between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 8 minutes. <i>Danger.</i> —Vessels should be careful to avoid Bonham Rock, which is described in vol. III of the "China Sea Directory" as a dangerous rock awash at low water and situated 1 cable from the southernmost of the small islets west of Bonham Island, with the lighthouse bearing S.E. by E. $\frac{1}{4}$ E., distant 6 $\frac{1}{2}$ cables.	46
No tower, white lantern.	270	24	1869	do.	Visible all round. Telegraph station. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	47
Upper part black, lower white.	273	54	1870	D. 1st Order	Visible from N. 52° W. round by W. and S. to N. 73° E. The remaining angle is chiefly obscured by the Saddle and Parker groups of islands. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 1 minute between the first and second and 5 minutes between the second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	48

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
49	Shanghai	Tungsha	Light-vessel off S.W. edge of Tungsha Bank, in 4 fathoms water, with Gutzlaff Lighthouse bearing S. 20° E., Shaweishan Island N. 37° E.	31° 8' 21"	122° 0' 18"	Rev.	$\frac{1}{2}$ minute	11
50	do. ...	Shaweishan.....	Summit of island	31° 25' 27"	122° 14' 42"	F.	.....	22
51	do. ...	Kiutoan*.....	Light-vessel in 3 $\frac{1}{2}$ fathoms water, off the S.E. end of the Blockhouse Shoal. Kiutoan Beacon bears S. 68 $\frac{1}{4}$ ° W., distant 3.45 miles.	.....	.....	F.	.....	11
52	do. ...	Kiutoan Small Beacon	On the south bank of the Yangtze	31° 19' 23"	121° 39' 3"	Occ.	20 seconds light, 2 seconds eclipse, 2 seconds light, 2 seconds eclipse, 2 seconds light, 2 seconds eclipse, and so on.	10
53	do. ...	Lismore Wreck Light-boat.	About 500 feet to the northward of the Lismore wreck.	.....	.....	F.	.....	1
54	do. ...	Woosung.....	Left bank of the Woosung River, near Woosung.	31° 23' 19"	121° 30' 3"	F.	.....	12 white, 8 red, 5 green
55, 56	do. ...	Woosung Inner-Bar Lights: Feima Channel.†	Left bank of the Woosung River..	.....	.....	F.	.....	2

* Shifted to present position on the 5th January 1892.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Red, one mast with black ball.	40	.....	1855 altd. 1871	C.	"TUNGSHA" on her sides. A gun will be fired when vessels are seen running into danger, and the course that should be steered will be signalled by the Commercial Code. In foggy weather a steam horn will be sounded at intervals of 10 seconds. When necessary to lower the light for trimming, a small <i>white</i> light will be hoisted, and a flash-light burned. In order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.	49
Round, black.....	229	55	1871	D. 1st Order	Visible all round. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 5 minutes between the first and second and 1 minute between the second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	50
Red, one mast with black ball.	35	.....	1878	C.	"KIUTOAN" on her sides. In foggy weather a 10-cwt. fog bell will be struck three double blows in each minute, the interval between the blows of each pair being 5 seconds, and between two successive pairs of blows 15 seconds. When necessary to lower the light for trimming, a small <i>white</i> light will be hoisted, and a flash-light burned. In order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag. Vessels should not attempt to pass to the north-eastward of the lightship in her present position.	51
Wooden mast, white...	40	.....	1868	D. 6th Order	Altered 1878 and 1895. In 1895 this light was shifted 500 feet N. 47° E. from its last position.	52
Junk with one mast and ball.	.....	.....	1877	Unclassed ...	A <i>red</i> light with a <i>white</i> light underneath it. Vessels should not attempt to pass between the light-boat and the wreck.	53
Square, black	50	58	1865 altd. 1872, 1873, 1875, 1878, and 1888.	D. 4th Order	<i>White</i> from the bank of the Yangtze to the north-westward of the lighthouse to S. 14° 30' W.; <i>green</i> from S. 14° 30' W. to S. 57° 20' W.; <i>white</i> from S. 57° 20' W. to S. 70° 50' W.; and <i>red</i> from S. 70° 50' W. to the left (western) bank of the Woosung River.	54
.....	.....	.....	1893	D. 7th Order	A <i>white</i> light on the low pole near the river bank, and a <i>red</i> light on the high pole farther inland. See Nos. 47, 48 in list of Beacons.	55, 56

† Discontinued whenever, and so long as, the depth in the Feima Channel is less than the depth in the line of the old Bar Marks.

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Weather.
57	Shanghai....	Feima Channel Light- boat.	Moored to the northward or Poo- tung side of the line of the Feima Channel marks.			F.	.....	1
58, 59	do. ...	Woosung Inner-Bar Lights: Old Chan- nel.	Right bank of the Woosung River			F.	.....	2
60	Chinkiang, Yangtze.	North Tree	On the north bank of the river ...			F.	.....	7
61	do. ...	Cooper Bank.....	do. do.			F.	.....	7
62	do. ...	Tung-lo-tu	do. do.			F.	.....	7
63	do. ...	Bate Point, or Fish- bourne Island.	On Bate Point			F.	.....	7
64	do. ...	Beaver, or Pottinger Island.	On the southern extremity of the island.			F.	.....	7
65	do. ...	Tantu.....	On the south bank of the river, distant 5.62 miles below Silver Island.			F.	.....	7
66	do. ...	Pei-sin-chow.....	Lower (east) end of island, distant 5 miles from Chinkiang.			F.	.....	7
67	do. ...	Bethune Point.....	Upper (west) end of Pei-sin-chow Island.			F.	.....	7
68	do. ...	Mud Fort.....	On a low point on the north bank of the river, marked on some of the British Admiralty charts as Mud Fort, distant from Bethune Point 21 miles.			F.	.....	7
69	do. ...	Wade Island.....	On the island, about 4 miles from the lower (north) end.			F.	.....	7
70	do. ...	Wuhu.....	East bank of the river, 3½ miles above Point Morton.			F.	.....	7
71	Kiukiang, Yangtze.	Point Haines Beacon..	On the south (right) bank of the river.			F.	.....	7
72	do. ...	Two-fathom Creek Beacon.	On the left bank of Two-fathom Creek, 1,230 yards N. 87° E. from extreme point on the upper (western) end of the creek.			F.	.....	7
73	do. ...	Buckminster Island Beacon.	On Chin-tê-chow Island, about 1½ miles from the lower (north) end.			F.	.....	7
74	do. ...	Fitzroy Island Beacon	On the left bank of the river.....			F.	.....	7
75	do. ...	Tai-tzü-chi Beacon....	On the N.W. side of the Rock Temple.			F.	.....	7
76	do. ...	Kiangloong Wreck Light-boat.	Moored off the left bank of the river, abreast the wreck.			F.	.....	4
77	do. ...	Hen Point Beacon....	On the left bank of the river, opposite Hen Point.			F.	.....	7
78	do. ...	Eagle Island Beacon..	On the right bank, near point opposite Ngankin.			F.	.....	7

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
One mast with black ball.	.....	.....	1895	Unclassed....	A red light, to guide vessels using the Feima Channel when rounding Pheasant Point.	57
.....	.....	.....	1872	Red, D. 7th Order. White, D. 8th Order. D. 6th Order	A red light on the low bar mark near the river bank, and a white light on the high mark farther inland. See Nos. 49, 50 in list of Beacons.	58, 59
Black, single pole, sur- mounted by wicker ball.	65	73	1868	do.	Altered 1873. Position changed 1874, 1884, 1886, 1890, and 1892. In May 1894 this light was shifted 600 feet N. 50° E. from its last position.	60
do.	51	62	1867	do.	Altered 1873. Position changed 1876, 1880, 1881, 1882, 1883, 1885, 1887, 1888, and 1892. In August 1895 this light was shifted 86 yards S. 75° E. from its last position.	61
do.	49	59	1871	do.	Altered 1875. Position changed 1877.....	62
do.	53	63	1867	do.	Altered 1873.....	63
do.	52	62	1867	do.	Altered 1872. Position changed 1878. In September 1885 this light was shifted about 690 yards S. 11° E. from its last position.	64
do.	75	43	1867	do.	Altered 1875.....	65
do.	51	64	1871	do.	Altered 1873. In November 1893 this light was shifted 200 feet S. 42° E. from its last position.	66
do.	55	68	1867	do.	Altered 1875. Position changed 1878, 1881, 1883, and 1885. In September 1887 this light was shifted 230 yards N. 5° E. from its last position.	67
do.	55	70	1877	do.	Position changed 1878 and 1881. In April 1890 this light was shifted 720 feet N. 70° E. from its last position.	68
do.	52	70	1867	do.	Altered 1873.....	69
do.	77	44	1867	do.	Altered 1875.....	70
do.	34	48	1870	do.	Altered 1871. Position changed 1888.....	71
do.	34	47	1893	do.	Established to mark the upper (western) entrance of creek....	72
do.	32	46	1870	do.	Altered 1871. Position changed 1883. In October 1891 this light was shifted S. 48° E. 50 yards from its last position.	73
do.	32	46	1870	do.	Altered 1871. Position changed 1891 and 1893. In June 1895 this light was shifted 100 yards N. 2° W. from its last position.	74
do.	26	42	1870	do.	Altered 1871.....	75
One mast with black ball.	25	.....	1873	do.	Altered 1875, 1876, 1883, and 1885. Red. The light-boat is moored abreast the wreck (not over it), to mark the starboard side of the channel for vessels entering from seaward; and it should be passed close-to in order to avoid the wreck.	76
White, single mast....	35	38½	1870	do.	Altered 1871. Position changed 1882. Discontinued 1883. Re-established in March 1885. White. Visible all round.	77
Black, single pole, sur- mounted by wicker ball.	32	46	1870	do.	Altered 1871. Position changed 1879, 1880, 1882, 1884, and 1886. In May 1887 this light was removed from the island and re-erected on the right bank of the river, opposite its former position. In September 1891 the light was shifted down river about 1½ miles (nearer Ngankin).	78

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
79	Kiukiang, Yangtze.	Christmas Island Bea- con.	Upper (south) end of island .....	.....	.....	F.	.....	7
80	do. ...	Spencer Rock Light- boat.	Moored immediately below the lower or N.E. ledge of Spencer Rock, in Tung-liu Reach.	.....	.....	F.	.....	7
81	do. ...	N.E. Crossing Beacon	On the north (left) bank of the river.	.....	.....	F.	.....	7
82	do. ...	N.E. Crossing Channel Light-boat.	Moored near the lower end of the sand-bank marked on British Admiralty Chart No. 2,695, "Dries at 26 feet."	.....	.....	F.	.....	7
83	do. ...	Point Otter, Lay Island	Lower (east) end of island .....	.....	.....	F.	.....	7
84	do. ...	Kiukiang Rocks Light- boat.	Moored abreast of the Kiukiang Rocks, close to the upper end of Oliphant Island.	.....	.....	F.	.....	4
85	Hankow, Yangtze.	Li-yü-shan	On top of small hill on right bank of river, about 4 miles above Wu- sueh and opposite lower end of Hwang-lin-chow Shoal.	.....	.....	F.	.....	7
86	do.	Low Point	On the point .....	.....	.....	F.	.....	5
87	do.	Ruined Fort	On top of fort .....	.....	.....	F.	.....	7
88	do.	Lee Rock	On bluff, about 1 mile above rock .....	.....	.....	F.	.....	4
89	do.	Collinson and Hunter Islands Light-boat.	Off lower end of Collinson Island cut-off and upper end of Hunter Island.	.....	.....	F.	.....	7
90	do.	Collinson Island Light-boat.	Off upper end of Collinson Island .....	.....	.....	F.	.....	7
91	do.	Ten-foot Rock Light- boat.	Near north bank of river opposite Ten-foot Rock.	.....	.....	F.	.....	7
92	do.	Gravener Island Light-boat.	Off upper end of Gravener Island .....	.....	.....	F.	.....	7
93, 94	do.	Chung - chih - kuan Range Lights.	On right bank of river, opposite W. C. de Vries Rock, Huquang Winter Channel, Lo-ko-hi Reach.	.....	.....	F.	.....	4 2½

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Black, single pole, sur- mounted by wicker ball.	34	48	1870	D. 6th Order	Altered 1871. Position changed 1873, 1874, 1878, 1880, 1883, 1886, 1887, 1888, 1889, 1890, and 1892. In October 1893 this light was shifted 206 yards N. 11° E. from its last position.	79
One mast with black ball.	25	.....	1873	do.	Altered 1884. The light-boat is moored at the lower or N.E. ledge of Spencer Rock, to mark the starboard side of the south channel for vessels entering from seaward. Only in position during low stage of the river, viz., from about 1st December to 30th June.	80
Black, single pole, sur- mounted by wicker ball.	34	48	1870	do.	Altered 1871. Position changed 1872, 1874, 1875, 1883, 1888, and 1890. In April 1893 this light was shifted 1,498 yards S. 79° E. from its last position.	81
One mast with black ball.	25	.....	1886	do.	The light-boat is moored about 3 miles above N.E. Crossing light beacon, on the north side of the channel at its narrowest part, to indicate the channel when the banks are flooded. Only in position during high stage of the river, viz., from about 1st July to 30th November.	82
Black, single pole, sur- mounted by wicker ball.	34	48	1870	do.	Altered 1871. In November 1893 this light was shifted 50 yards S. 52° W. from its last position.	83
One mast with black ball.	34	.....	1894	do.	<i>Red.</i> The light-boat is moored abreast of the Kiukiang Rocks, to mark the starboard side of the channel for vessels entering from seaward.	84
Light exhibited from top of small pillar standing in front of keepers' quarters—a two-story grey brick building with a Chinese roof.	84	.....	1886	do.	The hill on which the light stands is known locally as Li-yü- shan. The light illuminates an arc of 240°, i.e., from N. 40° W. round by W., S., and E. to N. 80° E.	85
A single pole, with ball on top. Roof of hut painted red.	43	.....	1871	do.	<i>Red.</i> Altered 1872. Visible from S.E. round by S. and W. to N. 15° E.	86
A single pole, with ball on top, at corner of hut.	31	.....	1873	do.	Visible from S. 25° W. round by S. and E. to N. 35° W.	87
Lantern-hut grey; light shown from corner.	60	.....	1882	do.	<i>Red.</i> Altered December 1884	88
Red hull, one mast and ball.	25	.....	1871	do.	Altered 1873. Stationed off the upper end of Hunter Island from about December to end of June, and off Collinson Island, lower end (cut-off) from about 1st July to December.	89
do.	25	.....	1871	do.	Altered 1873. Stationed near north bank from about De- cember to end of June, and to mark cut-off from about 1st July to December.	90
do.	25	.....	1873	do.	Opposite Ten-foot Rock from about end of November to 30th June.	91
do.	25	.....	1869	do.	Altered 1873. Position changed as necessary	92
A single white pole and ball.	.....	.....	1892	do.	<i>Red</i> light on high pole. <i>White</i> light on low pole (nearer to the channel). Temporary lights for clearing Huquang Rock. Exhibited from about December to May, or when the river is below 19 feet (Hankow established water gauge).	93
A single white pole and ring.	.....	.....	1892	Unclassed		94

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wear- ther.
95	Hankow, Yangtze.	So-chia-chih Range Lights.	On right bank of river, opposite Huquang Rock, Huquang Win- ter Channel, Lo-ko-hi Reach.			F.		2½
96								2½
97	do.	Bouncer Island Light-boat.	Off lower end of Bouncer Island...			F.		7
98	do.	Yang-lo	On small hill, distant 111 yards to the N.W. of the Yang-lo Joss House.			F.		7½
99	Chefoo.....	South-east Shantung Promontory.	On the S.E. 'elbow of the South- east Shantung Promontory.	36° 54' 0"	122° 31' 45"	Rev.	½ minute	15 ⁷ / ₁₀
100	do.	North-east Shantung Promontory.	On the N.E. extremity of the North-east Shantung Promon- tory.	37° 24' 0"	122° 42' 0"	Occ.	13 secs. light, 2 secs. eclipse, every quarter of a minute.	22
101	Chefoo.....	Chao-pei-tsui*.....	On the northernmost bluff imme- diately to the eastward of Wei- haiwei Harbour.	37° 27' 41"	122° 15' 5"	Rev.	½ minute	15
102	do.	Observatory Island †...	Near western shoulder of island...	37° 30' 25"	122° 10' 25"	F.		4 red, 6 white.
103	Chefoo.....	Chefoo Light.....	Kung-tung-tao Island, highest part	37° 33' 45"	121° 32' 0"	F.		22

* Discontinued during the war with Japan : not relit.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
A single pole, painted white, red, and black, with ball on top.	.....	.....	1892	Unclassed	White light on high pole. White light on low pole (nearer to the channel). Temporary range lights for clearing W. C. de Vries Rock. Exhibited from about December to May, or when the river is below 19 feet (Hankow established water gauge).	95
A single pole, painted white, red, and black, with ring on top. Red hull, one mast and ball.	.....	.....	1892	do.		96
One single mast	25	.....	1871	D. 6th Order	Altered 1873. Stationed on north side of spit, to mark the cut-off, from about 1st July to December, and on south side from about 1st December to end of June.	97
.....	67	.....	1892	do.	On the north bank of river 14 miles below Hankow. Lighted temporarily the first time August 1891. The light is visible from river between the bearings S.S.E. round by E. and N. to N.N.W.	98
Round, red and white horizontal bands.	96½	77½	1883	D. 1st Order	The lightkeepers' dwellings and boundary wall are painted white. A first-class siren, giving a blast of 4 seconds' duration at intervals of 1½ minutes, will be sounded during thick or foggy weather. <i>Dangers.</i> —Regarding the island which forms the South-east Shantung Promontory, the "China Sea Directory," vol. III, 1894, p. 545, states that:—"Extensive reefs, some detached, border the whole shore, which is of the most dangerous character, and should not be passed at less than 1 mile, except off the western bluff, nor in less than 9 fathoms water. A 6-fathoms rocky patch (there may be less water) lies 1 mile off shore with the extremes of the island bearing west and north."	99
Round, white	220	64	1874 altd. 1892	do.	White from S. 62° E. to S. 30° E.; red from S. 30° E. to S. 17° E.; white from S. 17° E. round by S. and W. to N. 21° E.; and red from N. 21° E. to N. 49° E. Between S. 59½° E. and S. 18¼° E. the light is seven times obscured by peaks; the obscuration between S. 26° 18' E. and S. 23° 10' E. being caused by Alceste Island. The lightkeepers' dwellings and boundary wall are painted white. During foggy or thick weather, a first-class siren will be sounded, giving 2 blasts, each of about 2½ seconds' duration (high note, low note), in quick succession every 2 minutes. <i>Note.</i> —The former fog signal, which was 2 guns fired with an interval of 1 minute between them and repeated after an interval of 10 minutes if a vessel's signal—showing that she was under way—continued to be heard, will not be given in future unless the siren shall be disabled.	100
White.....	94	35½	1891	D. 4th Order	To mark the eastern entrance to Weihaiwei Harbour. The lightkeepers' dwellings and boundary wall are painted white.	101
White, iron framework	61	.....	1891	D. 6th Order	Red between the north-western shoulder of Leu-kung-tau and S. 46½° W.; white between S. 46½° W. and S. 28¾° W.; and red between S. 28¾° W. round by E. and N. to N. 23½° W. The lightkeepers' dwelling is painted white. <i>Directions.</i> —Vessels entering should keep in the white sector, with the light bearing about S. 37° W., magnetic, till Round Island bears N. 45° W., then haul gradually to the westward into the red sector and round the north-western end of Observatory Island at a distance of not less than 2 cables.	102
Round, white and red horizontal bands.	242	45	1867	C. 1st Order	Visible all round. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 5 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 8 minutes.	103

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
104	Chefoo.....	Howki Island	Summit of island	38° 3' 45"	120° 39' 0"	Rev.	$\frac{1}{2}$ minute	24
105	Chefoo.....	Port Arthur*.....	On bluff at western side of en- trance to Port Arthur.	38° 47' 26"	121° 15' 26"	F.	.....	8
106	do.	Lao-t'ieh-shan Pro- montory*	On S.W. slope of Lao-t'ieh-shan Promontory.	38° 43' 17"	121° 8' 26"	Gp. FL.	$\frac{1}{2}$ minute	25
107	Tientsin.....	Tsao-fei-tien	Tsao-fei-tien Island ("Shalui- tien").	38° 56' 0"	118° 31' 0"	F.	.....	10
108	do.	Taku	Light-vessel in outer anchorage, and moored in 17 $\frac{1}{2}$ feet of water at low water springs, off Taku Bar.	38° 54' 50"	117° 51' 0"	Rev.	$\frac{1}{2}$ minute	11
109	Newchwang	NEWCHWANG †.....	Light-vessel in 5 fathoms water, about 3 $\frac{1}{2}$ miles W.S.W. from bar of Liao River.	40° 35' 0"	122° 0' 0"	F.	.....	11

* Temporarily controlled by Japan.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, black	328½	46½	1882	D. 1st Order	Visible all round. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 2 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes. <i>Note.</i> —The exhibition of this light is discontinued on the 16th December of each year and resumed on the 1st March of the following year.	104
Black and white horizontal bands.	90	22	1891	D. 6th Order	<i>White</i> between the bearings S. 50° W. round by W. and N. to N. 27½° E. Keepers' dwellings and boundary wall are painted white. <i>Note.</i> —This light is in the Newchwang Customs district, but it is under the control of the Chefoo Customs.	105
Round, white	315½	52	1893	D. 1st Order	Showing double <i>white</i> flashes between the bearings S. 8° E. round by E. and N. to N. 73° W., except where it is obscured by outlying islands. <i>Notes.</i> —The exhibition of this light is discontinued on the 16th December of each year and resumed on the 1st March of the following year. This light is in the Newchwang Customs district, but it is under the control of the Chefoo Customs.	106
White, octagonal, built of brick and stone.	50	45	1886	D. 6th Order	Visible all round. Light not exhibited from 1st January to 1st March.	107
Red, one mast, with black ball as day mark.	35	.....	1880 altd. 1887	C.	"TAKU" on her sides. In foggy weather a gong will be sounded at 1-minute intervals. In order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. This light-vessel is only in position from the opening of the river to the 30th November, on account of ice. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.	108
Red, three masts, with black ball on main-mast only.	35	.....	1867 altd. 1871	C.	"NEWCHWANG" on her sides. A gun will be fired when vessels are seen running into danger, and the course that should be steered will be signalled by the Commercial Code. In foggy weather a steam fog horn will be sounded at intervals of 10 seconds. When necessary to lower the light for trimming, a small <i>white</i> light will be hoisted and a blue light burned; and, in order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. This light-vessel is only in position from about the 1st April to the 15th November, on account of the ice. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.	109

† Has not yet resumed position.

BUOYS.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
PAKHOI.				
1. Starboard Buoy.....	Red nun buoy, 4½ feet in diameter, surmounted by a black spherical cage.	On starboard side of fairway, entering from seaward, between rows of fish-stakes off the village of Tikok, at the entrance to the anchorage.	21 feet.....	From the buoy, Custom House bears S. 84° E. and Tikok Point S. 32° E. A clear passage, 270 feet wide, exists between these buoys, with not less than 19 feet of water at low water spring tides.
2. Port Buoy	Black nun buoy, 4½ feet in diameter, surmounted by a black diamond-shaped cage.	On port side of fairway, entering from seaward, between rows of fish-stakes off the village of Tikok, at the entrance to the anchorage.	18 do.	From the buoy, Custom House bears S. 83° E. and Tikok Point S. 30° E.
3. Harbour Buoy.....	White and black vertically striped nun buoy, 3½ feet in diameter.	At inner (east) limit of anchorage for foreign vessels.	14 do.	From the buoy, Custom House bears S. 70° E. and Tikok Point S. 64° W. Vessels drawing more than 12 feet should not anchor to the eastward of the buoy.
KIUNGCHOW.				
1. Middle Channel Buoy...	Red and black horizontally striped conical 10-foot buoy, surmounted by a black spherical cage.	As fairway buoy at eastern entrance to the Middle Channel, Hainan Strait.	78 feet.....	This buoy marks the fairway of the eastern entrance to Middle Channel. Approximate position, latitude 20° 17' 35" N., longitude 110° 58' 20" E. With the buoys in the positions described, vessels entering the South Channel from the eastward should steer to leave the Riversdale Rock Buoy about 3 cables on the port hand and the Hainan Head Bank Buoy about 3 cables on the starboard hand, taking care to guard against being set towards the shore, and remembering that it is safe to borrow towards the banks on the starboard hand, of which the lead, which should be kept going, will give warning, while on the other side the bottom is rocky and uneven and the lead gives no warning. The Hainan Reef Buoy may be left at a distance of 1 cable or more on the port hand by vessels entering the strait from the eastward.
2. Riversdale Rock Buoy...	Black conical 6-foot buoy, surmounted by a black triangular cage.	About 1½ cables to the north-eastward of the rock.	57 do.	
3. Hainan Head Bank Buoy	Red conical 6-foot buoy, surmounted by a black inverted frustum cage.	About 9 cables N. 67° E. from Hainan Point.	26 do.	
4. Hainan Reef Buoy	Black conical 6-foot buoy, surmounted by a black spherical cage.	About 2½ cables to the northward of the outer rock of Hainan Reef.	72 do.	
CANTON.				
1. Dutch Folly North Buoy	Wooden conical-shaped buoy, painted red above water.	Near Dutch Folly Island, Canton River.	8 feet	Marks the western extremity of the channel, northern side, between the rocks, on which the depth of water is 4 feet at low water spring tides. A red light is placed on it from sunset to sunrise.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
2. Dutch Folly South Buoy	Wooden conical-shaped buoy, painted black.	Near Dutch Folly Island, Can- ton River.	12 feet	Marks the western extremity of the channel, southern side, between the rocks. Moored close to the northern side of the rock, on which the depth of water is 2 feet at low water spring tides. A <i>green</i> light is placed on it from sunset to sunrise.
3. Macao Fort Rock Buoy	do. do.	On the north-east extremity of Macao Fort Rock.	10 do.	Marks the north-eastern ex- tremity of Macao Fort Rock. A <i>green</i> light is placed on it from sunset to sunrise. Vessels should pass between this buoy and the Haeshin Rock Buoy.
4. Haeshin Rock Buoy....	Wooden conical-shaped buoy, painted red above water.	South-western edge of Haeshin Rock.	10 do.	Marks the south-western edge of Haeshin Rock. A <i>red</i> light is placed on the buoy from sunset to sun- rise. Vessels should pass between this buoy and the Macao Fort Rock Buoy.
5. Bird's Nest Rocks Buoy	do. do.	Off the south-western end of the Bird's Nest Rocks.	13 do.	Marks the south-western edge of the Bird's Nest Rocks. A <i>red</i> light is placed on this buoy from sunset to sunrise.
6. Shamien Rock Buoy....	Wooden conical-shaped buoy, painted in red and black chequers above water.	On the northern extremity of the Shamien Rocks.	12 do.	Marks the northern extre- mity of Shamien Rocks. A <i>red</i> light is placed on the buoy from sunset to sunrise. Vessels entering should leave this buoy on the port hand when rounding-to, to anchor in the harbour.
7. Fa-ti Rock Buoy.....	do. do.	On the northern extremity of the rock.	12 do.	A <i>red</i> light is placed on this buoy from sunset to sun- rise.
SWATOW.				
1. Dove Rock Whistling Buoy.	Red and black chequered au- tomatic whistling buoy, 10 feet in diameter at the water line.	Off the Dove Rock.....	4½ fathoms...	Placed about 2 cables from the pinnacle of the Dove Rock, so as to mark the S.E. extremity of the reef.
2. Mud Flat Buoy	Red conical buoy, 6 feet in diameter at the water line, surmounted by a black spherical cage.	Outer edge of mud bank; E. ½ N. of Customs Pier; distant three-quarters of a mile.	2 do. ...	Marks the southern edge of the mud bank on the north side of the harbour.
3. Wyoming Rock Buoy...	Black conical buoy, 6 feet in diameter at the water line, surmounted by a black in- verted frustum cage.	Off the rock, Swatow Anchorage	7 do. ...	This buoy is placed about 40 yards N.E. from the rock, on which there is 4 feet of water at low water spring tides.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
4. Madras Rock Buoy.....	Black conical buoy, 6 feet in diameter at the water line, surmounted by a black spherical cage.	Off the rock, Swatow Anchorage	3½ fathoms...	This buoy is placed about 40 yards N. by E. from the rock, which has only 6 feet of water on it at low water spring tides.
AMOI.				
1. Coker Rocks East Buoy	Black and white chequered conical buoy, 6 feet in diameter.	Eastward of the Coker Rocks	8 fathoms ...	} Vessels should not pass between these buoys.
2. Coker Rocks West Buoy	Red and white chequered conical buoy, 6 feet 5 inches in diameter.	Westward of the Coker Rocks	6¾ do. ...	
3. Brown's Rocks East Buoy.	Black and white chequered conical buoy, 6 feet in diameter, surmounted by a black spherical cage 2 feet in diameter.	Eastward of the Brown's Rocks	12 do. ...	} do. do.
4. Brown's Rocks West Buoy.	Red and white chequered conical buoy, 6 feet in diameter, surmounted by a black spherical cage 2 feet in diameter.	Westward of the Brown's Rocks	6½ do. ...	
5. Harbour Rock Buoy.....	Red and black chequered nun buoy, 3 feet 4 inches in diameter.	On the north-western edge of the Harbour Rock.	22 feet	About 130 fathoms S.W. of Dock Island. Vessels passing inside this buoy should give it a berth of not less than 50 fathoms.
6. Kellett Spit Buoy	Red and black vertically striped conical buoy, 6 feet in diameter.	On the northern end of the Kellett Spit.	22 do	Vessels should not pass between this buoy and the Island of Kulangsu.
7. Quemoy Spit Buoy.....	Red automatic whistling buoy. The name "QUEMOY" is painted on the buoy in white letters.	Off the south-south-western edge of the spit.	8 fathoms ...	10 feet in diameter. Vessels should not pass between this buoy and Quemoy Island.
8. Minerva Rock Buoy.....	Black nun buoy, 7 feet 6 inches in diameter. The name "MINERVA" is painted on the buoy in white letters.	To the south-eastward of Minerva Rock (off the extremity of Cass Spit).	4 do. ...	From the buoy, the summit of Monkey Island bears N. 24½° E., Druid Head (on Kulangsu) bears N. 62° E.; Cornwallis Stone (on Amoy) bears S. 85° E. Vessels should not pass between this buoy and Sungseu Island.
TAMSUI.				
Northern Bar-buoy*.....	Black conical buoy, 6 feet in diameter.	Northern side of approach to Tamsui Bar.	29 feet	Low Bar Light, S. 82° E.; Chinese beacon, N. 57° E.
Southern Bar-buoy*.....	Red conical buoy, 6 feet in diameter.	Southern side of approach to Tamsui Bar.	22 do.	Low Bar Light, N. 85° E.; Chinese beacon, N. 46° E.
Harbour Buoy*.....	Red nun buoy, surmounted by a black spherical cage.	On the northern edge of the sandspit at the southern side of the entrance to Tamsui Harbour.	13 do.	Low Bar Light, N. 80° E., about 3½ cables distant.

* Control now rests with Japan.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
<i>Inflexible Reef Buoy</i> *	Black conical buoy, 4 feet in diameter, surmounted by a black spherical cage.	Inflexible Reef, Kelung Harbour.	60 feet	Image Point, N. 60° W.; Ruin Rock, S. 28° W.
<i>Coral Shoal Buoy</i> *	Red conical buoy, 4 feet in diameter, surmounted by a black spherical cage.	To the eastward of Coral Shoal, Kelung Harbour.	30 do.	Image Point, N. 24° W.; Ruin Rock, S. 61° W.
FOOCHOW.				
1. Min Reef Whistling Buoy.	Red and black chequered automatic whistling buoy. The name "MIN" is painted on the buoy in white letters.	About 2 $\frac{3}{4}$ cables to the east-north-eastward of the north-east pinnacle of the reef.	60 feet	10 feet diameter. From the buoy Chang-chi Peak bears N. 46° E.; Sharp Peak bears N. 72° W.
2. Aymar Rock Buoy	Red and black chequered buoy, surmounted by a black diamond-shaped cage. The name "AYMAR" is painted on the buoy in white letters.	About 2 $\frac{3}{4}$ cables to the east-south-eastward of the pinnacle of the rock.	54 do.	6 feet diameter. From the buoy Chang-chi Peak bears N. 67° E.; Middle Dog Lighthouse bears S. 35° E.; Sea Dog bears S. 57° E.
3. East Channel Entrance or No. 1 Fairway Buoy.	Red and black horizontally striped fairway buoy, surmounted by a cage.	Entrance to Min River, East Channel.	24 do.	10 feet diameter and 18 feet high to top of cage. Sharp Peak bears N. 75° W.; Black Head bears S. 39° W.
4. Middle or No. 2 Fairway Buoy.	Red and black horizontally striped fairway buoy, surmounted by a black conical frustum cage.	Entrance to Min River.....	15 do.	10 feet diameter and 18 feet high to top of cage. Sharp Peak bears N. 65° W.; Black Head bears S. 24° W.
5. Inner or No. 3 Fairway Buoy.	Red and black horizontally striped fairway buoy, surmounted by a black cage.	do. do.	33 do.	10 feet diameter and 18 feet high to top of cage. Sharp Peak bears N. 50° W.; Round Island bears S. 55° W.
6. Eme Rock Buoy.....	Red nun buoy.....	Starboard side of channel, Min River.	15 do.	Clears Eme Rocks. Sharp Peak Point bears S. 81° E.; Sharp Peak Summit bears N. 11° E.
7. Temple Rock Buoy.....	do.	Temple Rock, Min River.....	18 do.	Marks the southern extremity of the rock.
8. Stone Barrier Buoy.....	Black nun buoy	Close to the northern end of Stone Barrier opposite Temple Point, Min River.	25 do.	Vessels should not pass between this buoy and Wild Duck Bank (West Brother).

* Control now rests with Japan.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
9. Niu-ta Rock Buoy	Black nun buoy, surmounted by a black spherical cage.	On the northern edge of the Niu-ta Rock.	20 feet	Vessels must not pass to the eastward nor to the southward of this buoy.
NINGPO.				
1. Sesostri Rock Buoy	Black and red chequers, surmounted by a black cage.	Near the rock in mid-channel	30 do.	This buoy is placed to the eastward of the rock, on which there is 9 feet of water at low water spring tides.
SHANGHAI.				
1. Ariadne Rock Whistling Buoy.	Red and black chequered automatic whistling buoy.	About 250 yards south of the Ariadne Rock.	30 feet	8 feet in diameter, and 8 feet above the water line. The Ariadne Rock just shows at low water spring tides.
2. Fairway Bell Buoy	Red and black horizontally striped buoy, surmounted by a black spherical cage.	Off the southern entrance to the Yangtze; Gutzlaff bearing south, and <i>Tungsha</i> lightship N. 60° W.	22 do.	10 feet in diameter, 15 feet high to top of cage.
3. <i>Fairy</i> Wreck Buoy.....	Green conical buoy, with the word "WRECK" and the numeral "3" painted on it in white.	About 150 yards north-eastward of wreck of <i>Fairy</i> ; House Island Beacon bearing N. 10° W.; distant about 4 $\frac{8}{10}$ miles.	Uncertain.	
4. Middle Ground Lower Buoy.	Black buoy with black spherical cage.	Off the north-eastern edge of the south bank, with House Island Beacon bearing N. 11° W.; distant about 3 $\frac{1}{10}$ miles.	do. ...	6 feet diameter, 11 $\frac{1}{2}$ feet high to top of cage.
5. Middle Ground Upper Buoy.	Black buoy with black cylindrical cage.	Off the upper or north-western end of the shoal formerly known as the Middle Ground, with Kiutoan Beacon bearing S. 15 $\frac{1}{2}$ ° W.; distant 2 $\frac{1}{4}$ miles.	do. ...	do. do.
6. South-east Knoll Buoy..	Red buoy with black spherical cage.	Off the south-easternmost of a line of knolls to the south-westward of Blockhouse Shoal; Small Kiutoan Beacon bearing S. 87° W.; distant about 2 $\frac{9}{10}$ miles.	do. ...	do. do.
7. <i>Lismore</i> Wreck Buoy...	Green nun buoy, with the word "WRECK" and the numeral "1" painted on it in white.	Immediately below the wreck of the <i>Lismore</i> , in line with the wreck and Woosung Lighthouse.	24 feet	4 feet diameter.
8. Woosung Spit Buoy.....	Red and black vertically striped buoy, with black spherical cage.	On the eastern end of Woosung Spit and starboard side of channel at the entrance to the Woosung River.	18 do.	10 feet diameter, 18 feet high to top of cage.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
Yangtze River above Woosung.	9. Dove's Nest Buoy..	Red buoy with black spherical cage.	Off the edge of the Dove's Nest Shoal (which is a part of the Actæon Shoal), on the starboard side of the channel.	Uncertain ... 6 feet diameter, 11½ feet high to top of cage.
	10. Triumph Buoy.* Bank	Black buoy with black inverted frustum cage.	On the edge of the bank which extends from the southern shore.	do. ... do. do. †
	11. Actæon Buoy *....	Red buoy	Off the edge of the Actæon Shoal, on the starboard side of the channel.	do. ... 6 feet diameter.†
	12. Centaur Buoy.* Lower	Black buoy with black spherical cage.	On the south-eastern extremity of the Centaur Shoal.	do. ... 6 feet diameter, 11½ feet high to top of cage.†
	13. Actæon Shoal Upper Buoy.* §	Red and black vertically striped conical buoy, surmounted by a black triangular cage.	Off the north-western end of the Actæon Shoal.	do. ... do. do. †
	14. Middle Buoy ‡ Bank	Red and black horizontally striped buoy, surmounted by a black spherical cage.	Lower end of the Langshan Crossing.	do. ... do. do. †
	15. North Bank Buoy ‡	Red buoy	To the southward of the south-eastern elbow of the North Bank.	do. ... 6 feet diameter.†
	16. Langshan Buoy ‡... Bank	Red buoy with black spherical cage.	Off the edge of the bank forming the north-eastern side of the channel.	do. ... 6 feet diameter, 11½ feet high to top of cage.†
	17. Vine Point Lower Buoy. ‡	Red buoy	do. do.	do. ... 6 feet diameter.†
	18. Waterman Bank Upper Buoy. ‡	Black buoy	Off the north-eastern edge of the continuation of the Waterman Bank.	do. ... do. do. †
	19. Vine Point Buoy ‡	Red buoy with black spherical cage.	Off the north-western edge of the Vine Point Shoal.	do. ... 10 feet diameter, 18 feet high to top of cage.†
	20. North Tree Rocks Buoy.	Red buoy	About 500 feet to the south-westward of the pinnacle of the rocks.	do. ... 6 feet diameter.
	21. South-east Buoy. § Spit	Red and black vertically striped conical buoy, with a black diamond-shaped cage.	Off the south-eastern end of the Actæon and Dove's Nest Shoals.	do. ... 6 feet diameter, 11½ feet high to top of cage.
	22. Cone Tree Buoy § ..	Black conical buoy	Off the eastern edge of the Actæon Shoal.	do. ... 6 feet diameter.

* These four buoys lead over the Centaur Crossing.

† The banks at the Centaur and Langshan Crossings are subject to frequent changes. These parts of the river should therefore be navigated with caution, and the lead kept going.

‡ These six buoys lead over the Langshan Crossing.

§ These five buoys mark the Harvey Point Channel.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
CHINKIANG.				
1. Silver Island Spit Buoy	Red and black vertically striped 6-foot conical buoy, surmounted by a black diamond-shaped cage.	On the end of spit, eastward of Silver Island.	Uncertain....	Vessels should not pass between this buoy and Silver Island.
HANKOW.				
1. W. C. de Vries Rock Temporary Spar Buoy.	Black spar buoy, surmounted by a red flag.	Nearly on rock, a little on the east side.	.....	Long white range pole at Chung-chih-kuan bears about E. $\frac{1}{4}$ S., distant about 700 yards. This buoy is maintained from about December to May, or when the river is below 19 feet (Hankow water gauge).
2. Huquang Rock Temporary Spar Buoy.	do. do.	Nearly on rock, a little on the south side.	.....	Long range pole (white, red, and black) at So-chia-chih bears about S. $\frac{1}{2}$ E., distant about 400 yards. This buoy is maintained from about December to May, or when the river is below 19 feet (Hankow water gauge).
3-9. Lee Rocks Temporary Spar Buoys.	Black spar buoys	On various rocks, Shi-hui-yao Reach, south side.	.....	Seven (or more if necessary) spar buoys mark the Lee Rocks and others during low water, placed for the guidance of light-draught lighters and tugs using the wharf at Shi-hui-yao. Vessels bound up or down river should give the outer buoys a wide berth and keep as close as practicable to the mud bank on the north side of the river. Weather permitting, the outer buoy (the one nearest mid-channel) will be lighted during low water.
TIENTSIN.				
1. Fairway Buoy*.....	Red and black horizontally striped iron egg buoy, 6 feet 3 inches in diameter, surmounted by black tripod and cage.	Placed at the entrance to the channel across the bar.	2 $\frac{1}{2}$ feet.	
2. Black or South Buoy*..	Black iron nun buoy, 8 feet 6 inches in diameter.	On the south side of the channel, to mark a bend.	6 do.	
3. North Bank Spit Buoy*	Red iron nun buoy, 6 feet 8 inches in diameter.	On the south edge of the North Bank Spit.	7 do.	
4. Inner Buoy*.....	Red iron nun buoy, 8 feet 6 inches in diameter.	On the south edge of the north bank.	7 do.	

* During the winter months the four iron buoys in the Tientsin district are replaced by spar buoys, painted black.

BUOYS—*Continued.*

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	REMARKS.
	Description.	Position.		
NEWCHWANG.				
1. Entrance Buoy*	Black conical buoy, surmounted by a black frustum cage.	On the south-western extremity of the west bank and outer edge of the bar.	15 feet.	
2. Middle Buoy*	Black conical buoy, surmounted by a black diamond-shaped cage.	Inside the shoalest part of the bar, and marks the south-eastern extremity of the west bank.	8 do.	
3. Inner Buoy*	Red conical buoy, surmounted by a red spherical cage.	Marks the western edge of east bank and shows about the inside limit of the shoal water.	12 do.	

* From about the 1st November until about the 10th April the three iron buoys in the Newchwang district are replaced by wooden spar buoys, of similar colours, surmounted by black cages fixed on bamboo perches.

BEACONS.

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
CANTON.				
1, 2	Dutch Folly North Beacons.	On the rocks near Dutch Folly Island, north side of the channel.	Round granite beacons, 26 feet high, painted red, and surmounted by a lantern.	Two red lights.
3	Dutch Folly South Beacon.	On the rocks near Dutch Folly Island, south side of the channel.	A round stone and brick beacon, 22 feet high, painted black, and surmounted by a lantern.	Green light.
4	Taimei Beacon.....	On the end of sandspit making out from 49th Point, Marines Island, Blenheim Passage.	Spar beacon, 27 feet 6 inches high, surmounted by a square frame, and painted black, white, and black.	White light.
5-7	Taishek Barrier Beacons.	On the northern side of the barrier, Blenheim Passage.	Three spar beacons, each 46 feet high, surmounted by a circular frame, and painted red, white, and red.	Two red lights hoisted to the east and west beacons.
SWATOW.				
8	Gochang Rock Beacon.	On the rock, Swatow Anchorage	Black, granite beacon, 5 feet in diameter, 5 feet high, and carrying a 5 feet high pole surmounted by a black wicker basket.	The highest of these rocks is covered at high water. From the beacon Gochang Point bears S. 31° E., and is distant about 350 yards; Bottefurh's Rock bears N. 76° E.
AMOY.				
9	Alibi Rock Beacon...	On a rock a little to the N.E. of the northern end of Kulangsu.	Black, granite obelisk, 22 feet high above the rock.	The rock dries at low water.
10	Kangsintah Beacon.	These two beacons mark two reefs of rocks (extending out from Kulangsu) at points where they uncover at $\frac{1}{4}$ ebb.	Black, granite obelisk, 15 feet high above the rock on which it is built.	A rock, covered 14 $\frac{1}{2}$ feet at low water springs, lies N. by E. 40 yards from the southern of these two beacons (Chiotah); and S.E. by E. from the same beacon, distant about 100 yards, is a rocky patch, the centre and shoalest part of which has only 5 feet of water on it at low water springs. From the centre of this patch Alibi Rock Beacon is seen just open to the N.E. of the northern of these two beacons and in line with the west face of Monkey Island. The highest pinnacle of the Coker Rocks is in line with these two beacons, bearing from them about S. 34° E.
11	Chiotah Beacon		Black, granite obelisk, 17 feet high above the rock on which it is built.	
12-24	Harbour Marks.....	On rocks in the Inner Harbour. Three off the northern end of Kulangsu; six on the west side of the Inner Harbour; and four on the east side of the Inner Harbour.	13 perches, with round basket tops. The four on the eastern side of the Inner Harbour are painted red; the remaining nine black. The baskets on all the perches are painted white.	The first three mark the northern edges of reefs off the north end of Kulangsu. The next six are on rocks on the western side of the Inner Harbour. The last four are on the eastern side.

BEACONS—Continued.

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
TAMSUI.				
—	Bush Island Beacon *	On the extreme west end of Bush Island, Kelung Harbour.	Grating (crossed), 8 feet by 5 feet, mounted on a single spar 42 feet high. The grating is painted white, the spar is painted black.	Formerly a single grating; altered in August 1893 by having an additional grating put up at right angles to the old grating.
FOOCHOW.				
25	Oriental Rock Beacon.	On Oriental Rock, Kimpai Pass	Spar mounted with a cage, 4 feet square on the upper and 2 feet 6 inches on the lower part. Painted red, with the words "ORIENTAL ROCK" in white on the cage. Shows 14 feet above high water spring tides.	At high water spring tides the rock is covered 4 feet. Vessels must pass to the south of the beacon, and not nearer than 100 feet.
26	Half-tide Rock Beacon.	On the Half-tide Rock, near the upper end of Tongue Shoal.	Built of granite, painted black	The rock is submerged 5 feet at high water springs.
27	Pagoda Rock Beacon	On the rock in the Pagoda Anchorage.	Iron pile, surmounted by a cage painted red.	A red light is exhibited from sunset to sunrise. The rock is submerged 10 feet at high water springs.
28	Mamoi Rock Beacon	On Mamoi Rock	Pole with cage painted red	The rock is only covered at high water.
WENCHOW.				
29	Elephant Rock Beacon.	On a small pinnacle rock called "Hsiang-shih" (Elephant Rock), about 600 feet S.E. of the east end of Pagoda Island (Ku-hsi, vulgarly called Kiang-sin-sze), which is in the middle of the river opposite the north wall of the city.	The beacon consists of an iron mast 3 inches in diameter, painted red, on which is fixed a bamboo basket 6 feet in diameter, painted red, with a white horizontal band round the centre.	The top of the mast is 15 feet above high water springs. The centre of the basket is 9 feet 6 inches above high water springs. The rock is submerged 8 feet at high water springs.
30, 31	1st Crossing or Lower Anchorage Beacons.	These beacons were removed during the recent war and have not been replaced, being for the present not necessary, owing to the washing away of the sandbanks in the river, as stated in Wenchow Local Notice to Mariners No. 23 of 9th August 1895.		
32, 33	2nd Crossing or Snipe Island Beacons (Ning-chu-tu).			
34, 35	3rd Crossing or Chiang-t'u Beacons.			
NINGPO.				
36	Alligator Beacon	On Alligator Point, a ledge of rocks extending 2 cables south from the extreme southern end of Kintang Island.	Stone beacon, painted red	Long-nose Point bears N. 56½° W.; Just-in-the-way bears S. 87° E.

* Control now rests with Japan.

BEACONS—*Continued.*

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
37	Blonde Rock Beacon	Blonde Rock, in the Kintang Channel.	Iron beacon, with cage, painted black.	Sanshan Islet bears S. 42° E.; Square Island, N. 65° W.; Rock awash at low water.
38	Tiger's Tail Beacon..	On a rock bearing N. 43° W. from the tower on Tiger Island; distant 210 yards.	Iron beacon, painted black, with a white cage.	Rock awash at half tide.
39	Nemesis Rock Beacon.	On a ledge of rocks extending from the north-eastern point of Tayew Island.	Hard-wood spar, painted red, with an inverted frustum cage, painted white.	Erected by Chinese, but maintained by the Customs.
SHANGHAI.				
40	Clump Beacon	South side of southern entrance to the Yangtze River.	Quadrangular open-work structure of wood, 50 feet high, and not painted.	Established for surveying purposes.
41	House Island Beacon	Near the south-western shore of House Island.	Quadrangular open-work structure of wood, 50 feet high, and painted white.	do. do.
42	Kiutoan Beacon.....	South side of southern entrance to the Yangtze River.	do. do.	do. do.
43	Kiutoan Small Beacon.	500 feet S. 47° W. from the Kiutoan Small Beacon Light.	Wooden tripod, painted white	do. do.
44	Blockhouse Island Beacon.	Near the south-eastern end of Blockhouse Island.	Quadrangular open-work structure of wood, 50 feet high, and painted white.	do. do.
45	Middle Island Beacon.	Near the eastern end of Middle Island.	do. do.	do. do.
46	Drinkwater Point Beacon.	Near the south-eastern shore of Tsungming Island.	Quadrangular open-work structure of wood, 50 feet high, and not painted.	do. do.
47, 48	Woosung Inner-Bar Marks: Feima Channel.*	On the left bank of the Woosung River.	1. A low pole, with a pyramidal top, near the river bank. 2. A high pole, with a rectangular top, farther inland.	These poles kept in line indicate the fairway course through the Feima Channel. A white light on the low pole and a red light on the high pole indicate the same channel by night.
49, 50	Woosung Inner-Bar Marks: Old Channel.	On the right bank of the Woosung River.	do. do.	These poles kept in line lead across the bar in the depth of water which is signalled from the Customs station during daylight. A red light on the low pole and a white light on the high pole indicate the same channel by night.
KIUKIANG.				
51	Lay Island Beacon...	On the island, about 1 mile from the upper (west) end.	A spar beacon, 45 feet above high water, surmounted by a black ball, and painted black and white.	It marks the channel in crossing over from the south to the north bank during the low state of the river in winter. In April 1895 this beacon was shifted 1,650 yards S. 81° W. from its last position.

* Discontinued whenever, and so long as, the depth in the Feima Channel is less than the depth in the line of the old Bar Marks.

BEACONS—*Continued.*

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
52	Oliphant Island Beacon. HANKOW.	On the island, about $4\frac{1}{2}$ miles from the upper end.	A spar beacon, 45 feet above high water, surmounted by a black ball, and painted black and white.	It marks the north-western entrance of the channel in crossing from the north to the south bank. In April 1895 this beacon was shifted 1,800 yards N. 85° W. from its last position.
53, 54	Chung-chih-kuan Range Poles.	On the rocky south shore, nearly abreast of W. C. de Vries Rock, Huquang Winter Channel, opposite Huquang Flats, Lo-ko-hi Reach.	These range poles are erected on pyramid-shaped stone beacons. 1. A high pole, surmounted by a black wicker ball. 2. A low pole, which is nearer to the channel, surmounted by a black ring. Both poles are painted white. The stone beacons are covered when the Hankow water gauge shows 19 feet 6 inches.	These poles kept in line lead clear of the Huquang Rock and give a nearly mid-channel course. They are placed in position in December, or when the river falls to 19 feet, and removed again early in May, or when the river is rising and the Hankow water gauge shows about 19 feet.
55, 56	So-chia-chih Range Poles. CHEFOO.	On the south shore, opposite Huquang Rock, in the Huquang Winter Channel, abreast of Huquang Flats, Lo-ko-hi Reach.	1. A low pole, with a ring on top, near the river bank. 2. A high pole, with a black wicker ball on top, farther inland. Both poles are painted white, red, and black.	These poles kept in line lead clear of the W. C. de Vries Rock and give a nearly mid-channel course. The high pole remains during summer; the low pole is removed or placed in position at the same time as the Chung-chih-kuan range poles.
57	Fairway Rock Beacon. TIENTSIN.	On the Fairway Rock, off the north-western point of Yentai Hill.	An iron rod, surmounted by a cage.	Rock dries at low water spring tides.
58	Wooden Beacon.....	On the north bank, at the mouth of the Peiho.	Pyramid shape, painted white.	
59, 60	South Bank Leading Marks up the Deep Hole.	On the south bank	Two poles with square boards painted one half white and one half black.	
61, 62	South Bank Marks	On the south bank, near the mouth of the Peiho.	Two poles, outside one surmounted by black ball, and inside one by square wooden grating painted one half white and one half black.	
63	South Bank Mark...	On the south bank of the Peiho, near the C. M. S. N. Co.'s godown.	A board painted one half black and one half white, erected on two poles.	
64	East Spit Beacon *.. NEWCHWANG.	On the East Spit, a shoal extending south-westerly from the dry bank of the river.	Red spar, mounted with two red balls; 25 feet above high water.	It marks the western edge of East Spit, on the starboard side of channel. The Whale's Back Shoal, on the opposite side of the fairway, bears about S.W. by W. $\frac{1}{2}$ W. from this beacon.

* Removed every year, in the latter part of November, on account of ice in the river, and replaced as soon as practicable on the opening of navigation.

BEACONS—*Continued.*

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
65	Nodding Tommy Beacon.* †	On the east bank of the river, and 1 mile above East Spit Beacon.	Red spar, mounted with a red diamond-shaped box, which has a white band 1 foot wide painted round the middle of it. The spar is 25 feet above high water.	It marks the east bank of the river.
66	Middle Bank Bea- con.*	On the east bank of the river, about $2\frac{1}{4}$ miles above Nodding Tommy Beacon.	Red spar, mounted with a red spherical cage, 25 feet above high water.	Middle Bank Shoal, on the opposite side of the channel, bears about S.W. by W. $\frac{3}{4}$ W. from this beacon.
67	Flagstaff Beacon....	On dry ground on the east bank of the river, and 7 cables N.E. from Middle Bank Beacon.	Spar, 50 feet high, mounted with two diamond-shaped boxes. The spar is painted red from the ground to the bottom of lower box, white from thence to the bottom of upper mark, and the re- mainder red.	
68	Fish House Beacon	On the west bank of the river, near high water mark, and a short distance from the bend that leads to the harbour.	Black spar, 40 feet high, mounted with a black dia- mond-shaped box.	It marks the channel in cross- ing over from the east to the west bank of the river.

* Removed every year, in the latter part of November, on account of ice in the river, and replaced as soon as practicable on the opening of navigation.

† To the S.E. of Nodding Tommy and about 200 yards from it there is a beacon painted black, which is intended for survey purposes only.

A. M. BISBEE,

Coast Inspector.

By Order of the INSPECTOR GENERAL,

H. KOPSCH,

Statistical Secretary.

INSPECTORATE GENERAL OF CUSTOMS,

STATISTICAL DEPARTMENT,

SHANGHAI, *January 1896.*

APPENDIX I.

LIST OF FOREIGN LIGHTS STAFF.

(Corrected to 1st December 1895.)

No.	NAME.	Rank.	Date of first Appointment.	District or Section.
LIGHT-VESSELS.				
1	C. E. R. Handro	Captain	November 1882	Newchwang.
2	C. J. V. Hoerk [<i>detached</i>]	"	December 1890	Shanghai.
3	L. R. Sachs	"	July 1885	"
4	R. P. Hansen	"	November 1891	Tientsin.
5	C. Druwert	Mate	" 1886	Shanghai.
6	A. H. A. Windhorst	" (Actg. Capt.)	December 1890	"
7	H. A. Thorkelsen	"	September 1887	Tientsin.
8	O. R. F. Soderberg	" (Actg. Capt.)	June 1892	Shanghai.
9	D. E. Christiansen	"	November "	Chefoo.
10	A. Andreasen	"	September 1888	"
11	C. Smith	"	" 1892	"
12	M. Foyt	"	July 1895	Tientsin.
LIGHTHOUSES.				
LIGHTKEEPERS.				
13	J. Noble	Chief, A	June 1877	Amoy.
14	J. Harp	" "	" "	Chefoo.
15	T. Cunningham	" "	" "	Shanghai.
16	C. W. Bond	" "	" "	"
17	J. Eccles	" "	" "	Chefoo.
18	P. F. S. Wilnau	" "	November 1879	Amoy.
19	T. H. Blowey	" "	August 1892	Chefoo.
20	D. Botelho	" "	December 1861	Amoy.
21	C. May	Chief, B	July 1880	"
22	D. Wisas	" "	September 1875	Chefoo.
23	P. J. J. Stellingwerff	" "	February 1877	Amoy.
24	C. G. Soelberg	" "	April 1881	"
25	C. A. Schwilp	" "	September 1886	Chefoo.
26	A. Michel	Second, A	December 1874	Shanghai.
27	J. Chapman	" "	June 1878	Amoy.
28	J. S. de Elizaga	" "	December "	"
29	J. Shields	" "	August 1881	"
30	L. H. C. Klyhn	" "	January 1885	Chefoo.

APPENDIX I—Continued.

No.	NAME.	Rank.	Date of first Appointment.	District or Section.
31	G. J. Nott	Second, A	August 1892	Chefoo.
32	A. M. dos Santos	" "	March 1882	Amoy.
33	B. R. Bohn	" "	April 1889	"
34	J. Bluhm	" "	March 1885	Shanghai.
35	E. E. Ferrari	" "	April 1884	Amoy.
36	T. O'Driscoll	" "	January 1887	"
37	A. F. C. Penzig	Second, B	May 1882	Shanghai.
38	D. Fernandez	" "	June 1878	Amoy.
39	J. Rodrigues	" "	August 1877	Shanghai.
40	H. P. T. Möller	" "	November 1887	Amoy.
41	P. E. Johnsen	" "	March 1885	Chefoo.
42	H. A. Atkinson	" "	August "	Kiungchow.
43	J. C. H. Schmäser	" "	" 1888	"
44	F. R. Schulz	" "	September 1887	Shanghai.
45	F. Dalton	" "	March "	Chefoo.
46	J. H. Buntzen	" "	December 1888	Amoy.
47	P. H. Niner	Third, A	August "	"
48	J. Wulf	" "	November 1889	Chefoo.
49	J. Lewis	" "	January 1890	Shanghai.
50	C. Hansen	" "	May 1893	Kiungchow.
51	W. Murray	" "	March 1892	"
52	D. Ross	" "	May 1891	Shanghai.
53	J. C. Bruhn	" "	February 1890	Amoy.
54	H. J. Jacobsen	" "	" "	"
55	W. Owens	" "	July 1892	Shanghai.
56	W. Smith	" "	October "	"
57	A. Ross	Third, B	May "	"
58	S. P. Swensson	" "	April 1893	Amoy.
59	A. E. Adams	" "	November "	Shanghai.
60	N. H. Olsen	" "	" 1894	Amoy.
61	F. A. Ozorio	" "	December "	"
62	J. A. Tellesen	" "	February 1895	"
63	H. C. Atkinson [on probation]	" "	January "	Shanghai.
64	E. H. Fisher	" "	June "	"
65	R. B. Campbell	" "	September "	"
66	J. B. A. Grote	" "	October "	"
67	J. R. Hamilton	" "	" "	"
68	H. A. Pettersson	" "	December "	"

APPENDIX II.

LIST OF CHINESE LIGHTS STAFF.

(Corrected to 1st December 1895.)

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
	LIGHTKEEPERS.				
1	Hsieh Yung.....	謝 榮	Fourth, C	June 1894	Kiungchow.
2	Liang Ch'ao-hsi.....	梁 朝 熙	" "	February 1895	"
3	Liang A-lung.....	梁 亞 龍	" "	December 1894	"
4	Kuan Pao	關 保	" "	August "	"
5	Huang Yung-shêng.....	黃 榮 生	" "	October "	"
6	Chiang Hsiu-wên	蔣 秀 文	" "	" "	"
7	Ch'ên A-nan	陳 亞 南	" "	July 1895	"
8	Wei Tsu-yin	韋 祖 引	" "	August "	"
9	Tai Hsin-ch'ín	戴 信 琴	" "	November "	"
10	Ch'ên Fa.....	陳 發	" "	June 1892	Canton.
11	Ch'ên Ch'iao.....	陳 橋	" "	October 1893	"
12	Lao Kên.....	勞 根	" "	August 1895	"
13	Ho Kao	何 高	" "	September 1882	"
14	Liang I.....	梁 衣	" "	December 1894	"
15	Lao Shih-wu.....	勞 十 五	" "	October 1881	"
16	Lu Hung	盧 鴻	" "	December 1894	"
17	Ho Wo.....	何 窩	" "	November 1892	"
18	Li K'un.....	李 坤	" "	July 1891	"
19	Ch'ên Chu.....	陳 初	" "	March 1895	"
20	Liang Chi.....	梁 濟	" "	July 1891	"
21	Ch'ên Shu.....	陳 樹	" "	September 1892	"
22	Yeh Chin-ying.....	葉 進 英	" "	December 1894	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
23	Chang Wei.....	張 焜	Fourth, C	October 1888	Canton.
24	Chang Chin	張 金	" "	December 1891	"
25	Huang Jun	黃 潤	" "	January 1892	"
26	Ts'ao Hsi-ti.....	曹 細 弟	" "	June 1888	Amoy.
27	Wang Shih-ti	王 實 弟	" "	April 1890	"
28	Hsü Hsi-mei.....	許 細 妹	" "	December 1879	"
29	Lin Yung-mi.....	林 永 密	" "	July 1891	"
30	Chêng A-tê.....	鄭 阿 得	" "	November 1876	"
31	Chuang A-k'un.....	莊 阿 坤	" "	" 1883	"
32	Wang Nêng.....	王 能	" "	September 1886	"
33	Li T'ien-chiao.....	李 天 教	" "	January 1891	"
34	Lin Ch'iu.....	林 求	" "	September 1871	"
35	Lin Chung	林 仲	" "	January 1890	"
36	Li Chi	李 吉	" "	May 1862	"
37	Li Tun	李 盾	" "	November 1878	"
38	Li Hsün	李 罍	" "	April 1883	"
39	Huang Chên.....	黃 振	" "	November 1871	"
40	Li Lai.....	李 來	" "	September 1877	"
41	Huang Wei.....	黃 威	" "	March 1883	"
42	Li Ju	李 如	" "	April 1881	"
43	Lin Yu-hsien	林 有 賢	" "	January 1892	"
44	Chu A-mao.....	朱 阿 毛	" "	April 1883	"
45	Chu Ch'ao-fu.....	朱 朝 富	" "	September 1888	"
46	Ch'êng Ch'ín	成 欽	" "	January 1891	"
47	Hsü Lai-shun	許 來 順	" "	June 1888	"
48	Lin Yu-lai.....	林 有 來	" "	May 1882	"
49	Chu Chiang	朱 江	" "	August 1885	"
50	Hsü A-chiang	徐 阿 江	" "	April 1881	"
51	Chao Ch'un-piao	趙 春 標	" "	June 1882	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
52	Lin A-chu	林阿猪	Fourth, C	February 1882	Amoy.
53	Hung Hua	洪華	" "	December 1880	"
54	Wu A-yin	吳阿印	" "	July 1888	"
55	Chi Hsiang	紀响	" "	May 1881	"
56	Ch'ên Ch'ang-jung	陳昌榮	" "	April 1864	Ningpo.
57	Ku Chi-chang	顧寄章	" "	September 1877	"
58	Hsü Ch'üan-chin	徐全金	" "	January 1892	"
59	Hsieh Jên-kuei	謝仁貴	" "	October 1888	"
60	Wu Ping-chiang	鄔炳江	" "	January 1875	"
61	Shih A-hsüan	史阿煊	" "	" 1867	"
62	Wang Chung-huai	王中懷	" "	August 1879	"
63	Ch'ên A-fang	陳阿方	" "	June 1864	Shanghai.
64	Ts'ao A-pao	曹阿寶	" "	January 1883	"
65	Chao Kuei-yün	趙貴云	" "	" "	"
66	Lu K'un-jung	陸坤榮	" "	March 1878	"
67	Ling Hsiao-fang	陵小芳	" "	June 1869	"
68	Yang Shun-chung	楊順忠	" "	May 1873	"
69	Shên Ta-shêng	沈大生	" "	July 1883	"
70	Lu Yin-kuei	陸銀貴	" "	September 1880	"
71	Fei Chin-pao	費金寶	" "	April 1881	"
72	Hsü A-ping	徐阿炳	" "	May 1893	"
73	Shên Ch'ang-shêng [on probation] ..	沈長生	" "	" 1895	"
74	Yao Ting-kuei	姚定貴	" "	April 1880	"
75	Tsai A-tao	蔡阿道	" "	August 1893	"
76	Fu Chih-shou	傅志壽	" "	February 1877	"
77	Lo Ssü-yo	羅四岳	" "	April 1883	"
78	T'an Wên-chi	譚文紀	" "	" 1892	"
79	Yang Jui-chi	楊瑞吉	" "	August 1883	"
80	Wang Jên-ch'ien	王仁謙	" "	September 1889	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.		District or Section.
	In English.	In Chinese.				
81	Lu Chih-ho.....	陸 芝 和	Fourth, C	April 1893		Shanghai.
82	Lo Hsiu-liang.....	樂 秀 涼	" "	" 1891		"
83	Chiang Chin-shêng.....	蔣 金 生	" "	August 1893		"
84	Lo Hsi-pao	羅 西 寶	" "	October 1892		"
85	Ting A-t'ang.....	丁 阿 堂	" "	August 1870		"
86	Fei Kuei-hsien.....	費 桂 咸	" "	February 1885		"
87	Chang Chieh-mei [<i>on probation</i>].....	張 介 眉	" "	August 1894		"
88	Sung A-hsiao	宋 阿 小	" "	July 1876		"
89	Mao Pan-lai	毛 泮 來	" "	April 1893		"
90	Lo Chung-hsiao	樂 忠 孝	" "	June 1888		"
91	Chêng Ts'ai-hsing [<i>on probation</i>].....	鄭 財 興	" "	July 1895		"
92	Lu Hsü-ch'ing [<i>on probation</i>].....	陸 叙 卿	" "	October "		"
93	Chang Ts'ung-hsi [<i>on probation</i>].....	張 從 熙	" "	July 1893		"
94	Yüan Chin-hsiu [<i>on probation</i>].....	袁 金 秀	" "	November 1895		"
95	Chang Kuei-shêng [<i>on probation</i>]....	張 桂 生	" "	July "		"
96	Ts'ui Tê-fu.....	崔 德 福	" "	April 1873		Chinkiang.
97	Yen Wei-ch'un.....	嚴 維 春	" "	December 1886		"
98	Lu Hêng-i.....	陸 恒 義	" "	" 1870		"
99	Hsü Hung.....	徐 洪	" "	July 1878		"
100	Ts'ui Hêng-fa	崔 恒 發	" "	November 1881		"
101	Lu Ming-k'uei	陸 名 奎	" "	October 1894		"
102	Shao Mei-ts'ai	邵 美 才	" "	November 1877		"
103	Shao Fu-shou	邵 福 壽	" "	October 1893		"
104	Wang Fu-ch'üan	王 福 泉	" "	January 1880		"
105	Ch'ên Hung-chün.....	陳 宏 鈞	" "	September 1890		"
106	Chou Tê-shêng	周 德 盛	" "	June 1879		"
107	Chou Chêng-k'un.....	周 正 崑	" "	July 1894		"
108	Hsü Yu-kao	徐 有 告	" "	March 1874		"
109	Li Chin-yu	李 金 有	" "	August 1894		"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
110	Hung Wan-i	洪萬億	Fourth, C	February 1866	Chinkiang.
111	Ku Yung-lin	顧永林	" "	June 1885	"
112	Ch'ên Yu-i	陳有義	" "	April 1875	"
113	Yü Tê-shui	虞德水	" "	August 1884	"
114	Hsü Yung-shêng	徐永生	" "	April 1881	"
115	Pu Liu-yüan	卜流源	" "	July 1878	"
116	Wang Pang-ho	王邦和	" "	November 1886	"
117	Hsü Shao-ch'ên	許少臣	" "	July 1891	"
118	Wu Pên-hsin	吳本信	" "	June 1885	Kiukiang.
119	Wang Ch'üan-chin	王全金	" "	May 1887	"
120	Chou Tsung-huai	周宗淮	" "	July 1890	"
121	Wu Hsiao-lin	吳學林	" "	April 1885	"
122	Wan Yü-ch'iu	萬裕秋	" "	February 1891	"
123	K'ung Hsien-i	孔憲義	" "	January 1877	"
124	Huang Ho-jên	黃和人	" "	March 1892	"
125	Wan Yü-huai	萬裕淮	" "	December 1888	"
126	I Sui-hai	易綏海	" "	April 1890	"
127	Hsieh Yün-ch'üan	謝運全	" "	February 1891	"
128	Wang Lung-hai	王龍海	" "	May 1876	"
129	Ch'êng Tê-p'êng	程得鵬	" "	February 1887	"
130	Chang Liang-shan	張良善	" "	December 1885	"
131	Wan Yü-ts'ai	萬裕財	" "	" 1894	"
132	Kuei Ch'un-ying	桂春迎	" "	June 1876	"
133	Hsü Tsê-ming	徐澤明	" "	February 1891	"
134	Chang Shu-k'un	張述坤	" "	October 1872	"
135	Hu Ta-chêng	胡大正	" "	May 1891	"
136	Wang Wu-shang	王伍尙	" "	November 1884	"
137	Chang Ming-k'ai	張明楷	" "	July 1891	"
138	Hsiung Shêng-hsiu	熊盛修	" "	December "	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
139	Wu Ch'ing-nien.....	吳慶年	Fourth, C	April 1889	Kiukiang.
140	Ts'ai Tsêng-fa	蔡增發	" "	December 1873	"
141	Chu Mei-ch'üan	朱美全	" "	April 1890	"
142	K'o Ming-i.....	柯明義	" "	March 1885	"
143	Chang Shan-hsing.....	張善性	" "	October 1895	"
144	Liang I-fang.....	梁儀芳	" "	November 1889	"
145	Wan Yü-ch'uan.....	萬裕船	" "	September 1893	"
146	Wan Shih-yu	萬時友	" "	" "	"
147	Hsieh Shun-huai.....	謝順懷	" "	April 1891	"
148	Chu Chêng-yu.....	朱正有	" "	February 1863	Hankow.
149	I Ming-yüan.....	易明元	" "	December 1885	"
150	Wang Ts'ai-kao.....	王才高	" "	November 1891	"
151	Yang Ch'un-mao.....	楊春茂	" "	June 1890	"
152	T'ao Ming-chin	陶明金	" "	August 1889	"
153	Yao Ying-fa.....	姚英發	" "	March 1892	"
154	Wang Ming-shan.....	王明善	" "	October 1883	"
155	Liu Chêng-ch'ien	劉正乾	" "	April 1879	"
156	Liu Pi-ch'ang.....	劉必昌	" "	July 1869	"
157	Kuo Liang-shan	郭良山	" "	September 1894	"
158	Huo Yü-ch'ing	霍裕慶	" "	November 1884	"
159	Kung Tso-ying.....	龔作英	" "	January 1882	"
160	Liu Hsiao-fa.....	劉學發	" "	March 1895	"
161	Chang Lao-yao.....	張老么	" "	December 1873	"
162	Ch'in Tê-shih	秦德士	" "	June 1893	"
163	Chang Nien-pao.....	張年寶	" "	October 1871	"
164	Liu Chung-lin	劉忠林	" "	April 1862	"
165	Chiang Jên-k'uan.....	江人寬	" "	November 1891	"
166	Yang Chang-tê.....	楊章德	" "	January 1895	"
167	T'ien Fang-chin	田方金	" "	July 1876	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
168	Huang Hsien-ts'ai.....	黃賢才	Fourth, C	November 1892	Hankow.
169	Li Chêng-i	李正義	" "	September 1885	"
170	Yang Ts'ai-kên.....	楊才根	" "	October 1895	"
171	Ch'ih Ch'ing-ling	遲慶令	" "	August 1879	Chefoo.
172	Chou Ta-tê	周大德	" "	" 1887	"
173	Chi Ming-shui.....	紀明水	" "	January 1882	"
174	Lü K'o-hsiao	呂克學	" "	December 1885	"
175	Ting Wên-yüan	丁文元	" "	May 1871	"
176	Jên Ch'üan-kuei	任全桂	" "	April 1866	"
177	Han Yung-hsi.....	韓永錫	" "	August 1891	"
178	Lin Wên-chih.....	林文知	" "	September 1885	"
179	Ts'ung Ch'í-hsing.....	叢起興	" "	" "	"
180	Wang A-to *.....	王阿多	" "	June 1884	"
181	Mu Hsiang-ho *	慕香和	" "	September 1871	"
182	Chou Yung-hai.....	周永海	" "	November 1883	"
183	Kao Hua.....	高華	" "	April 1891	"
184	Ch'ü Shu-t'ien	曲書田	" "	August 1882	"
185	T'an Chêng-chü.....	譚正矩	" "	" 1893	"
186	Mêng Chao-shêng.....	孟昭盛	" "	" "	"
187	Sun Kuei	孫桂	" "	May 1861	Tientsin.
188	Lu Ch'ang-hsing.....	陸長興	" "	March 1887	"

* Engineer and Lightkeeper.

III.—MISCELLANEOUS SERIES.

No. 1.—THE TARIFF TABLES: First Issue	Published 1868.
„ 2.—TEN YEARS' STATISTICS	„ 1873.
„ 3.—VIENNA EXHIBITION CATALOGUE	„ 1873.
„ 4.—PHILADELPHIA EXHIBITION CATALOGUE	„ 1876.
„ 5.—PARIS EXHIBITION CATALOGUE.....	„ 1878.
„ 6.—LIST OF CHINESE LIGHTHOUSES, ETC.: Twenty-fourth Issue (First Issue, 1872)	„ 1896.
„ 7.—LIST OF CHINESE LIGHTHOUSES, ETC.: Chinese Version of the Twenty-fourth Issue (First Issue, 1877).....	„ 1896.
„ 8.—GENERAL TARIFF LIST	„ 1879.
„ 9.—BERLIN FISHERY EXHIBITION CATALOGUE	„ 1880.
„ 10.—NAMES OF PLACES ON THE CHINA COAST AND THE YANGTZE RIVER: First Issue.....	„ 1882.
„ 11.—LONDON FISHERIES EXHIBITION CATALOGUE	„ 1883.
„ 12.—RULES REGARDING NOTARIAL ACTS TO BE PERFORMED BY COMMISSIONERS OF CUSTOMS, AND FORMS OF PROTEST: Second Issue (First Issue, 1882: Circular No. 187).....	„ 1883.
„ 13.—LONDON HEALTH EXHIBITION CATALOGUE	„ 1884.
„ 14.—NEW ORLEANS EXPOSITION CATALOGUE	„ 1884.
„ 15.—ENGLISH-CHINESE GLOSSARY OF TECHNICAL ("LIGHTS," ETC.) EXPRESSIONS: First Issue	„ 1885.
„ 16.—CATALOGUE OF CUSTOMS PUBLICATIONS, WITH PRICES: First Issue	„ 1887.
„ 17.—LIST OF CHINESE MEDICINES.....	„ 1889.
„ 18.—THE TARIFF TABLES, 1885: Second Issue	„ 1889.
„ 19.—TREATIES, REGULATIONS, ETC., BETWEEN COREA AND OTHER POWERS, 1876-89	„ 1891.
„ 20.—TYPHOON ANCHORAGES	„ 1893.
„ 21.—CHART OF AMOY INNER HARBOUR	„ 1893.
„ 22.—WOOSUNG INNER BAR	„ 1894.
„ 23.—CHINESE LIGHTHOUSE CHART	„ 1895.
